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The Organization of Self-Knowledge and Race: Does Self-Concept Structure Impact the Responses of Black Individuals to Stereotype Threat?

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The University of Southern Mississippi

THE ORGANIZATION OF SELF-KNOWLEDGE AND RACE:
DOES SELF-CONCEPT STRUCTURE IMPACT THE RESPONSES
OF BLACK INDIVIDUALS TO STEREOTYPE THREAT?

by

Aisha Denise Baker

Abstract of a Dissertation
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

August 2012

ABSTRACT

THE ORGANIZATION OF SELF-KNOWLEDGE AND RACE: DOES SELF-CONCEPT STRUCTURE IMPACT THE RESPONSES OF BLACK INDIVIDUALS TO STEREOTYPE THREAT?

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Stereotype threat is defined as “the concern or worry that a person can feel when he or she is at risk of confirming or being seen to confirm a negative stereotype about his or her group” (Steele & Davies, 2003, p. 311). Stereotype threat has been examined in a variety of stereotyped groups, but the primary focus of this research has been Black individuals because they often encounter negative stereotypes about their race in the course of their daily lives. Some researchers have suggested that stereotype threat may partially explain the achievement gap between Black and White individuals (Steele & Aronson, 1995). The possible role that self-concept structure may play in the consequences of stereotype threat has yet to be explored. The present study examines evaluative organization and whether it moderates the responses of Black individuals to a stereotype threat manipulation. Research on the role that self-concept structure may play in the consequences of stereotype threat has the potential to shed additional light on the underlying mechanisms of the stereotype threat process and the impact of self-concept structure on the responses of Black individuals to race-related stress.

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CHAPTER I

INTRODUCTION AND LITERATURE REVIEW

Introduction

It is often assumed that being a member of a racial/ethnic minority group influences the way individuals think about themselves. For example, it has been suggested that the recent election of Barack Obama as president of the United States may increase the likelihood that other Black individuals will consider entering politics because they have seen someone from their own racial/ethnic background reach the highest elected office in the nation. The assumption that racial/ethnic background has an impact on how individuals view themselves has been supported by research concerning the importance of racial/ethnic background to identity (Cross, Parham, & Helms, 1991; Quintana, 2007), the possible impact of negative stereotypes on psychological functioning (Clark, Anderson, Clark, & Williams, 1999; Landrine & Klonoff, 1996; Utsey, Ponterotto, Reynolds, & Cancelli, 2000; Williams & Williams-Morris, 2000), and the experience of discrimination and prejudice (Franklin, 1999; Goodwin, Williams, & Carter-Sowell, 2010). The existing research suggests a deep connection between the racial/ethnic backgrounds of individuals and how these individuals view themselves.

Although other racial/ethnic minority groups faced similar challenges, the experiences of Black individuals has been the focus of considerable research which is due, in part, to the fact that they were the largest minority group in the United States until being replaced by Hispanic individuals in 2008. Black individuals currently make up approximately 12.8% of the United States population. However, it is important to note that the Black population is not evenly distributed across the country. Rather, there are a

disproportionate number of Black individuals living in the southern region of the United States (i.e., more than half of all Black Americans live in the southern region of the country). The state with the largest percentage of Black residents is Mississippi where more than 37% of the residents are Black. Black individuals constitute more than 25% of the population in Georgia, Louisiana, South Carolina, Maryland, and Alabama. Black individuals continue to comprise the largest minority group in 23 states (U.S. Census Bureau, 2009).

Differences between individuals from various racial/ethnic backgrounds have been the focus of countless news stories and research articles. This interest in racial/ethnic background is not terribly surprising for individuals in the United States given the history of the country. Black individuals were introduced to North America in 1619 when millions of Africans were forced into slavery. Slavery persisted in the United States for more than two centuries. Although slavery was abolished in the United States in 1865 with the approval of the 13th Amendment to the Constitution, there were relatively few changes in the status of Black individuals during the next several decades. For example, more than 3,000 Black individuals were lynched in the United States between 1882 and 1968 (Linder, 2000). In theory, the 15th Amendment to the Constitution extended the right to vote to Black men in 1870. Nevertheless, a variety of tactics including threats, intimidation, and bogus literacy tests were often used to keep Black individuals from voting. Black individuals were free but the same myths and stereotypes concerning the inherent inferiority of Black individuals that had been used to justify slavery were employed to deny them the rights of full citizenship (see Utsey, Bolden, & Brown, 2001 for a review).

The Civil Rights movement of the 1960s brought vast changes to the racial landscape of the United States with legislation granting a variety of new freedoms to Black individuals. Through the grass roots organization of sit-ins, freedom rides, and marches, Black individuals and their White allies protested unfair laws and unequal treatment. This eventually culminated in the Civil Rights Act of 1964 and the Voting Rights Act of 1965. The Black Power movement – an outgrowth of the Civil Rights movement which began in 1968 – was meant to address the failure of legislative changes to lead to tangible changes for Black individuals (Wynn, 2009). This movement brought with it a demand for equal treatment and a stance that nonviolence may not be the best way to enact change. The Black Power movement also embodied a sense of Black identity and pride that had not previously been recognized (Joseph, 2009). The Civil Rights movement and the Black Power movement paved the way for the enforcement of affirmative action legislation and the subsequent political gains of Black Americans and other racial/ethnic minority groups in the United States.

There continues to be considerable debate about whether race is merely a social construct or a genetically-based form of classification (Segall, 1999; Zyphur, 2006). However, few can debate that race continues to have important political, social, and economic implications (Utsey et al., 2001). The poverty rate for Black individuals (24.5%) in the United States is nearly triple that of White individuals (8.2%; U.S. Census Bureau, 2008). Black individuals are less likely to complete high school than White individuals (i.e., the completion rate for Black individuals is 83% compared to 91.5% for White individuals; U.S. Census Bureau, 2008). Black individuals who hold 4-year bachelor degrees earn approximately 22% less than comparably educated White

professionals (U.S. Census Bureau, 2008). Black individuals are nearly six times more likely to be incarcerated than White individuals (Mauer & King, 2007) and are treated more harshly at each stage of the criminal justice process (Kansal, 2005). Black individuals are less likely to have health insurance than White individuals and are more likely to die of cancer due to late diagnosis (Morris, Rhoads, Stain, & Birkmeyer, 2010). At every age, Black Americans have higher physical health morbidity and mortality rates than their White counterparts (Jackson, 1993) which may explain why the average life expectancy of Black individuals is approximately 10% shorter than the life expectancy of White individuals in the United States (Heisler, Rust, Patillo, & Dubous, 2004). Black individuals are less likely than White individuals to seek mental health services (Kessler et al., 2005). As can be seen from this partial list, the implications of race can be observed in a wide array of life domains.

Negative stereotypes about Black individuals persist in today's society which continue to characterize these individuals as intellectually inferior, dangerous, and lazy (Devine & Elliot, 1995; Niemann, Jennings, Rozelle, Baxter, & Sullivan, 1994). As with members of many stigmatized groups, Black individuals are often keenly aware of the stereotypes that exist about their group and may even believe some of these stereotypes. For example, there is evidence that Black individuals are just as likely as White individuals to view Black students as disengaged (Hudley & Graham, 2001), perceive Black targets as dangerous (Correll, Park, Judd, & Wittenbrink, 2002), describe Blacks as unintelligent (Niemann, O'Connor, & McClorie, 1998), and believe that Blacks are culturally inferior to Whites (Buckler, Wilson, & Salinas, 2009). There is also evidence

that Black children of various ages associate darker skin color with negative qualities and behaviors (Anderson & Cromwell, 1977; Averhart & Bigler, 1997; Porter, 1991).

Black individuals are likely to be impacted by the negative stereotypes about their group in a number of ways. This may happen through everyday experiences of prejudice or discrimination referred to as racial microaggressions (Franklin, 1999). In essence, racial microaggressions are “brief, everyday exchanges that send denigrating messages to people of color because they belong to a racial minority group” (Sue et al., 2007, p. 273). Experiences that may be considered to be microaggressions include being ignored while shopping at a department store and a coworker making an offensive comment concerning race. Several studies have revealed that these sorts of experiences are associated with negative mental health outcomes (Clark et al., 1999; Landrine & Klonoff, 1996; Utsey et al., 2000; Williams & Williams-Morris, 2000). For example, individuals who report higher levels of race-related stress have been found to report more depressive symptoms (Utsey et al., 2000).

Another important way that Black individuals may be impacted by stereotypes is that awareness of stereotypes may influence their behavior. It has long been acknowledged that individuals who are the targets of stereotypes and bigotry may experience elevated levels of anxiety (Allport, 1954; Goffman, 1963). Early research in this area examining the impact of desegregation on the intellectual performance of Black students revealed that Black college students performed more poorly when told that a task was a test of intelligence than when told that it was a problem-solving task (Katz, 1964). Katz suggested that the difference in performance was likely due to the experience of social threat. Decades later, Steele (1990) proposed that Black students are likely to

develop an inferiority anxiety in response to repeated exposure to negative perceptions of their capabilities. This can lead the students to form a *victim's identity* which may make it less likely that they will achieve positive life outcomes. These ideas served as the foundation for the seminal work on stereotype threat conducted by Steele and Aronson (1995).

The Link Between Racial/Ethnic Background and Self-Esteem

It has often been suggested that the history of slavery, segregation, discrimination, and marginalization experienced by Black individuals may take a psychological toll (Scott, 1997). As an example, the constant awareness of racial stereotypes and frequent experiences of racism may result in Black individuals developing negative beliefs about themselves. This suggestion is consistent with the idea of the *looking glass self* which proposes that the self-concepts of individuals are at least partially determined by the way they believe they are perceived by others (Cooley, 1902). This idea would seem to suggest that members of stigmatized groups – such as Black individuals – should form relatively negative self-evaluations due to the fact that their group is viewed negatively by larger society (Cartwright, 1950; Gerth & Mills, 1953). These theoretical contributions influenced conceptualizations of Black individuals and suggested these individuals should experience negative attitudes concerning themselves and their group (e.g., low self-esteem). In contrast to this simple proposal, the self-esteem of Black individuals is relatively complex and has changed dramatically during the past 60 years.

The most famous early studies examining the self-esteem of Black individuals involved asking Black children to indicate their preferences for either a Black doll or a White doll (Clark & Clark, 1947). Black children overwhelmingly preferred the White

doll and explained their decisions as being due to the White doll as being a *better* color or that the Black doll was *bad*. This served as initial evidence that Black individuals saw themselves in a negative manner and was used as part of the rationale for the *Brown v. Board of Education* decision which led to desegregation (Jackson, 1998).

The self-esteem of White individuals continued to be somewhat higher than Black individuals during the 1950s and 1960s but the effect size diminished until the two groups were functionally equivalent by the late 1960s. Replications of the Clark and Clark (1947) doll studies in the late 1960s revealed conflicting results with some studies showing that Black children preferred White dolls and other studies showing that Black children actually preferred Black dolls (e.g., Crooks, 1970; Herba & Grant, 1970). These results may indicate a shift in the self-perceptions of Black individuals over time. It appears that these changes mirror the changes noted in studies of the self-esteem of Blacks in the 1970s (Taylor & Walsh, 1979). By the mid-1970s, Black individuals were often found to report somewhat higher levels of self-esteem than White individuals which may have been a result of the Civil Rights movement and the Black Power movement. The largest increase in the self-esteem of Black individuals was seen in the 1980s as the gap between the self-esteem of Black and White individuals nearly doubled in size from the 1970s (Twenge & Crocker, 2002). The fact that Black individuals generally report higher levels of self-esteem than White individuals is referred to as the *Black self-esteem advantage* and it is a relatively small but robust finding (Gray-Little & Hafdahl, 2000; Twenge & Crocker, 2002).

The development of self-report measures of global self-esteem such as the Rosenberg Self-Esteem Scale in the mid-1960s changed the way that self-esteem was

measured (Rosenberg, 1965). Originally designed to assess self-esteem in a sample of adolescents in New York, the Rosenberg Self-Esteem Scale has become known as the gold standard in the assessment of self-esteem. Other self-esteem measures would soon follow (e.g., Coopersmith Self-Esteem Inventory; Coopersmith, 1967) and the use of these self-report instruments increased the reliability of self-esteem measurement.

However, this direct measurement approach is not without its limitations. For example, this approach is based on two underlying assumptions: (1) individuals have introspective access to all aspects of their self-esteem and (2) individuals will be honest in their reporting (see Zeigler-Hill & Jordan, 2010, for a review). The reliance on this direct measurement approach leaves open the possibility that the increases in self-esteem observed for Black individuals in recent decades may be due, at least in part, to the way individuals are responding to these direct measures rather than reflecting actual changes in their feelings of self-worth.

Many researchers are surprised by the Black self-esteem advantage because it has often been assumed that being a member of a stigmatized minority group would result in negative consequences for how individuals think and feel about themselves. This basic idea is referred to as the *internalization of stigma* which is a modern adaptation of Cooley's (1902) looking glass self. It is interesting that Black individuals are able to avoid the development of negative attitudes about themselves whereas members of other minority groups generally report lower levels of self-esteem than White individuals (Twenge & Crocker, 2002). A number of factors have been offered as potential explanations to account for the Black self-esteem advantage such as Black individuals using the stigma associated with their group as a form of self-protection (Crocker &

Major, 1989; McCarthy & Yancey, 1971; Rowley, Sellers Chavous & Smith, 1998; Simmons & Rosenberg, 1971), Black individuals possessing a more positive racial identity than other groups (Gray-Little & Hafdahl, 2000), Black individuals using more extreme response styles (Gray-Little & Hafdahl, 2000), Black individuals having feelings of self-worth that are less contingent than those of White individuals (Zeigler-Hill, 2007), and cultural differences in the self-concept (Twenge & Crocker, 2002). However, it is important to note that recent research suggests that the high levels of self-esteem expressed by Black individuals may not be completely positive because their feelings of self-worth appear to be at least somewhat fragile (Zeigler-Hill, Wallace, & Myers, 2010) and accompanied by narcissistic tendencies (Zeigler-Hill & Wallace, 2011).

The Self-Concepts of Black Individuals

The possibility that individuals from different racial/ethnic backgrounds have different self-concepts may have important implications for understanding how individuals think about themselves and how this relates to the Black self-esteem advantage. This idea suggests that racial differences in self-esteem may be due to different ways of thinking about the self that are related to the ethnicity or culture of the individual. For example, it has been suggested that varying degrees of collectivism and individualism among Whites, Blacks, Asian Americans, Hispanic Americans, and Native Americans appears to provide evidence of the impact of cultural differences (Oyserman, Coon, & Kemmelmeier, 2002). In addition to differences in collectivism and individualism, other aspects of the self-concept may also have important implications for racial differences in self-esteem. Differences in the manner in which individuals organize their beliefs about themselves are of particular interest in exploring the ways in which

Black individuals respond to negative stereotypes and maintain high levels of self-esteem despite their membership in a stigmatized racial/ethnic minority group.

Dubois (1903) was one of the first scholars to write about the existence of a *dual consciousness* for Black individuals in the United States. This idea reflects a relatively unique quandary for Black individuals whose identities as being *Black* and *American* at the same time were often in conflict with each other. Fanon (1967) later wrote about a similar concept in his appropriately titled book *Black Skin, White Mask* in which he described a sort of balancing act that is necessary for Black individuals to avoid negative psychological consequences. More recently, the term *bicultural* has been used to describe the complex experience of Black individuals who sometimes operate in the context of their own culture but at other times operate in the majority White culture (Dill, 1979). This navigation of two cultural systems is described by some members of racial/ethnic minority groups as *being of two worlds* (Diemer, 2007).

For many members of racial/ethnic minority groups, racial identity or group membership is an important aspect of their identities. Blackwell (1981) examined the potential implications of biculturalism for Black professionals who were mainstreamed into American culture. Blackwell observed that these individuals tend to either assimilate or compartmentalize. Assimilation involves adopting the values and norms of the dominant culture, essentially severing all ties to anything associated with Black culture. Compartmentalization is characterized by constructing boundaries between the experiences of their culture of origin and the mainstream culture. This means that individuals who compartmentalize are forced to shift back and forth between their two cultural contexts.

In a study that explored the bicultural experience of Black women, Bell (1990) used life network maps to examine the level of involvement in Black culture and mainstream White culture. Using these maps, Bell also examined the complexity and compartmentalization of life contexts. Complexity in the context of Bell's study refers to the number of distinct life contexts a person reports (i.e., their life roles). The term compartmentalization was used to describe the way the women organized their life structures and how distant or close these life structures were to each other. Bell observed that the lives of career-oriented Black women professionals were highly compartmentalized. There appeared to be very distinct boundaries between their work lives and personal lives. This compartmentalization was likely helpful for them as they navigated the different and sometimes conflicting demands of their personal and professional roles.

Similar results emerged from a qualitative examination of biculturalism among Black individuals which found that participants described a need for skills that would allow them to navigate both cultures as well as a need to balance involvement in predominantly White institutions with their involvement in the Black community (Diemer, 2007). In order to achieve educational or professional goals, Black individuals must often actively participate in the predominantly White opportunity structure (Cheatham, 1990; Ramseur, 1991). This is difficult because the social lives of Black individuals are likely to involve participation in organizations or social realms related to Black culture such that many Black individuals also view it as necessary to maintain ties to Black culture. Individuals who attempt to navigate these two cultures may experience a number of problems. Although becoming bicultural may offer some benefits (e.g.,

allowing individuals to experience the benefits of both cultures), it may lead to more internal conflict than either assimilation or marginalization (Bell, 1990; Tadmor, Tetlock, & Peng, 2009). For example, some Black individuals experience heightened levels of acculturative stress and isolation as their identification with the majority culture increases and their identification with Black culture decreases (Fordham, 1988; Landrine & Klonoff, 1996).

Relatively few empirical studies have examined dual consciousness or biculturality. There is some evidence that members of racial/ethnic minority groups often use their group membership as a way of identifying themselves and is likely to be mentioned in self-descriptions (Gray-Little & Hafdahl, 2000). Despite the potential utility of biculturality for understanding the experiences of Black individuals, no published studies have explored the content of the self-concept or its structure. Focus on the organization of the self-concept may offer some promising insights into the experience of dual consciousness by providing information about the way that the self-concepts of Black individuals influence their psychological adjustment. This approach also has the advantage of placing the idea of biculturality into a larger information processing context.

Self-Concept Structure

An early description of the self-concept refers to it as consisting of cognitive structures that contain attributes (Zajonc, 1960). Conceptualizing the self-concept as a multifaceted cognitive structure allows for the possibility that there may be more to the self-concept than its content. That is, the organization of self-knowledge may moderate the link between the valence of self-attributes (i.e., the number of positive and negative attributes) and indicators of psychological adjustment (e.g., self-esteem and depressive

symptoms; Showers & Zeigler-Hill, 2003). These organizational features are important because they determine the accessibility of positive and negative self-attributes which influences their impact. For example, if a person's negative attributes are not accessible due to the organization of the self-concept, then these negative beliefs will have relatively little impact on how the individual feels.

There are several models that deal with self-concept structure (see Showers & Zeigler-Hill, 2003 for a review). A feature that is common to these models is their focus on contextualized multiple selves that are often referred to as *self-aspects*. The self-aspects are defined by the individual and often vary from person to person. They often reflect social roles, responsibilities, personal characteristics, or current states. Examples of self-aspects include *student, employee, father, girlfriend, church member, or supervisor*. Each model of self-concept structure concerns a distinct feature of organization. The first of these structural models is self-complexity which refers to the degree of overlap in the attributes appearing in various self-aspects (Linville, 1985, 1987). Research concerning the self-complexity model suggests that when an individual has fewer self-aspects with greater overlap, then negative feelings elicited by aversive events in one area of life may spill over and influence self-views in other areas of life. Thus, differentiation of self-aspects often serves a stress-buffering function that protects individuals from the consequences of negative experiences. The second model of self-concept structure is self-concept clarity which refers to the extent that the self-concept is clear and confidently defined (Campbell, 1990). In essence, the self-concept clarity model refers to the level of certainty that individuals have concerning who they are and the attributes they possess. The third model concerns self-discrepancies which focus on

differences between the actual self (i.e., an individual's representation of attributes that the individual or someone else believes they possess) and the ideal self (i.e., the individual's representation of the attributes they or someone else would like them to ideally possess) or the ought self (i.e., the individual's representation of the attributes they believe they should possess; Higgins, 1987). Thus, the actual self is who a person believes oneself to be, whereas the ideal self is the person that one hopes or desires to be and the ought self represents who the individual feels a duty or obligation to be. The fourth model is referred to as differential importance which concerns the level of importance ascribed to positive self-aspects relative to negative ones (Pelham, 1991; Pelham & Swann, 1989). High levels of differential importance refer to positive self-aspects being viewed as more important than negative self-aspects.

The model of self-concept structure that will be the focus of the present study is evaluative organization (Showers, 1992, 2000). The model of evaluative organization focuses on the distribution of positive and negative attributes across self-aspects. This model is unique in that it accounts for both the valence of specific self-concept content as well as its organization. According to this model, evaluative organization is a continuum with extremes labeled as *evaluative compartmentalization*¹ and *evaluative integration*. Individuals with evaluatively compartmentalized self-concept structures organize their positive and negative attributes into separate self-aspects such that each aspect is composed of primarily positive or negative information about the self. For example, a compartmentalized individual may use the attributes *caring*, *compassionate*, *unselfish*, and *cheerful* to describe herself as a wife but the attributes *unmotivated*, *uncertain*, and

¹ Compartmentalization in the context of the evaluative organization model refers to the organization of the self-concept into self-aspects that are composed primarily of negative or positive information about the self. This is different from the definition of compartmentalization used by Bell (1990).

anxious to describe herself as an employee. In contrast, individuals with integrative self-concept structures have positive and negative attributes distributed somewhat evenly across self-aspects. For example, someone with an integrative self-concept may describe herself as a college student using characteristics such as *hardworking* and *motivated* but at the same time recognizing that she is also *uncertain* and *anxious*.

There are two forms of compartmentalization referred to as *positive* compartmentalization and *negative* compartmentalization (Showers, 1992). These forms of compartmentalization are distinguished by the relative importance of their positive and negative self-aspects such that compartmentalized individuals who evaluate their positive self-aspects as most important are positively compartmentalized whereas those who evaluate their negative self-aspects as important are negatively compartmentalized. According to the basic model of evaluative organization, positive compartmentalization is associated with indicators of psychological adjustment such as high self-esteem and low depressive symptoms because their negative self-beliefs are not readily accessible. In contrast, individuals with a negatively compartmentalized self-concept structure tend to experience relatively poor adjustment (e.g., low self-esteem and depressive symptoms) because they are flooded with negative beliefs about themselves due to the accessibility of these beliefs.

Integrative self-concept structures can also be positive or negative depending on the relative importance of their positive and negative self-aspects. Unlike compartmentalization, integration has been found to protect individuals from their negative beliefs about themselves. When relatively negative self-aspects are activated in

an integrative self-concept structure, the presence of positive self-beliefs within that self-aspect protects the individual from negative reactions to stress or threat.

Based on this model, it is clear that evaluative organization has the potential to significantly impact psychological adjustment. For example, an individual with an integrative self-concept structure may have a less positive reaction to an event that activates positive self-aspects than an individual with a compartmentalized self-concept structure. However, the individual with an integrative self-concept structure will be less likely to suffer a drop in self-esteem when a negative self-aspect is activated. Compartmentalized and integrative self-concept structures each offer advantages in different situations.

Positive compartmentalization is likely to be associated with relatively high levels of self-esteem. However, there is some evidence that individuals with compartmentalized self-concept structures may be vulnerable to experiencing extreme fluctuations in self-esteem depending on shifts in the salience of particular self-aspects. Thus, while compartmentalization may be related to high levels of self-esteem, these feelings of self-worth are likely to be unstable over time. This hypothesis was tested in a set of studies by Zeigler-Hill and Showers (2007). These studies found that among individuals with views of themselves that were generally positive, integration was associated with more stable self-esteem than compartmentalization. When integrative individuals had relatively low levels of self-esteem, their self-esteem was also somewhat unstable. In addition, the self-esteem of compartmentalized individuals was extremely responsive to a laboratory manipulation concerning social rejection. Taken together, these results supported the idea

that there is a *hidden vulnerability* for individuals who organize their self-concepts in a compartmentalized fashion.

Research by Showers & Kling (1996) suggests that evaluative organization may mediate the mood recovery process. More specifically, they found that individuals with positively compartmentalized self-concept structures appear to have the same sort of vulnerability found in Zeigler-Hill and Showers (2007) because these individuals were particularly vulnerable to intense mood states. Conceptually similar results have also emerged for the evaluative organization of beliefs about one's romantic partner (i.e., partner structure). A longitudinal study of the romantic relationships of college students found that individuals who had positively compartmentalized representations of their partners reported very positive attitudes toward their partners at the beginning of the study (Showers & Kevlyn, 1999). However, the positive attitudes expressed at the beginning of the study did not translate into relationship longevity because the individuals who had positively compartmentalized views of their partners reported relatively high rates of relationship dissolution one year later (Showers & Zeigler-Hill, 2004).

Short-term flexibility and long-term change

The manner in which self-concept organization responds to situations and changes over time is also an important feature of the organization of self-knowledge. Showers and Zeigler-Hill (2003) use the terms *short-term flexibility* and *long-term change* to describe the dynamics of self-concept structure. Short-term flexibility refers to the matching of self-concept structure to the present situation or context. Showers, Abramson, and Hogan (1998) found that short-term flexibility in self-concept structure facilitated resilience to

depression among college students with low vulnerability to depression. For those students, the perceived importance of negative attributes decreased at the same time that the number of negative attributes reported by the students increased due to stress. In essence, adaptive adjustments in the structure of self-concept can serve to protect individuals from the harmful consequences of stress. Individuals have also been found to shift toward a compartmentalized self-concept structure in times of high stress which resulted in lower levels of depression (Showers et al., 1998). Another study concerning the short-term flexibility of self-concept structure found that compartmentalized individuals with the highest levels of adjustment were often able to shift to an integrative style of thinking when asked to focus on their negative attributes (McMahon, Showers, Rieder, Abramson, & Hogan, 2003). Taken together, these studies suggest that individuals are often able to change the manner in which they organize their self-concept to facilitate adaptive responses to stress.

Long-term change in self-concept structure requires the development of new organizational strategies or the application of strategies that have been used in the past to new situations. There has been some limited examination of long-term change with regard to evaluative organization and differential importance. The short-term flexibility of differential importance suggests the possibility of changes in baseline levels of differential importance over time (Showers & Zeigler-Hill, 2003). Likewise, it has been suggested that exposure to certain stressful life events or to people who demonstrate compartmentalized or integrative thinking may have the potential to change the strategies an individual is likely to employ for handling certain types of situations (Showers & Zeigler-Hill, 2003). Compartmentalization appears to increase with stress in low

vulnerability individuals. However, there is some indication that integrative self-concept structure may be associated with the long-term struggle to deal with chronically relevant negative self attributes that are difficult to avoid (Showers, Zeigler-Hill, & Limke, 2006).

Differential importance and evaluative organization have many potential implications for the psychological functioning of racial/ethnic minority groups. There is some evidence that compartmentalized self-concept structure may play a special role for Black individuals. Baker, Zeigler-Hill, & Limke (2010) observed that positively compartmentalized self-concept structures were associated with lower rates of depression in Black individuals. This difference was not observed in White individuals. This preliminary study raises questions about whether self-concept structure may serve a protective function for Black individuals. That is, the structure of the self-concept may have the potential to influence the response of racial/ethnic minority group members to threats such as negative stereotypes and stressful situation by influencing the accessibility of particular self-beliefs.

Preliminary evidence suggests that compartmentalization may serve a protective function for Black individuals in at least some cases. The basic model of evaluative organization suggests that compartmentalization may be particularly useful for Black individuals because it has been used by individuals as they deal with certain types of stress. However, it is important to note that the recent extension of the basic model that identifies the hidden vulnerabilities of compartmentalization suggests that this form of self-concept structure may lead to a host of problems for Black individuals. More specifically, compartmentalization may increase the reactivity of Black individuals to specific events. For example, it is possible that awareness of negative stereotypes and

concerns about confirming these negative stereotypes may be especially likely to activate negative self-aspects of Black individuals with compartmentalized self-concept structures.

Stereotype Threat

Stereotype threat is a concept that was popularized by Steele and Aaronson (1995). They described a dilemma that may occur in individuals who belong to stereotyped groups. Stereotype threat is defined as “the concern or worry that a person can feel when he or she is at risk of confirming or being seen to confirm a negative stereotype about his or her group” (Steele & Davies, 2003, p. 311). For example, Black students have been found to underperform relative to White students when a task was described as ability diagnostic even though there was no difference in scores in the nondiagnostic condition after controlling for cognitive ability (Steele & Aaronson, 1995). It was suggested that this phenomenon had possible implications for other stereotyped groups.

Stereotype threat is a situational occurrence rather than a static trait. In order for stereotype threat to occur, several conditions must be met. These conditions include test diagnosticity, identification with the domain being examined, and identification with the stereotyped group (Steele, Spencer, & Aronson, 2002). Belief in the truth of the stereotype is not a necessary condition for stereotype threat to occur (Steele, 1997) which means that stereotype threat has the potential to disrupt the performance of a Black student completing an intellectual task, a female engineering major taking a math exam, or an elderly individual performing a memory test even if these individuals do not believe the stereotypes about their own groups.

Steele (1997) suggests that when an individual is exposed to stereotype threat repeatedly – as are women who major in male-dominated fields or Black students taking standardized tests – the individual may become susceptible to disidentification.

Disidentification occurs when an individual changes the way they think about themselves such that a particular domain is no longer relevant or important to them (e.g., a Black student may decide that academic performance is not important to their identity).

Although disidentification results in a reduction in the threat posed by the stereotype, this method of self-protection ultimately results in decreased motivation and eventually lower achievement. This suggests that the avoidance of stereotype threat actually has the power to shape the future of the individuals in these stereotyped groups.

Stereotype threat has been examined in a variety of stereotyped groups but the primary focus of this research has been Black individuals because they often encounter negative stereotypes about their race in the course of their daily lives. Some researchers have suggested that stereotype threat may partially explain the achievement gap between Black and White individuals (Steele & Aronson, 1995). Black students consistently score lower than White students on intellectual tests even when controlling for preparation and socioeconomic status. The differences in scores on achievement tests (an average of one standard deviation) have been the topic of much debate and speculation. Steele (2003) also suggested that stereotype threat may be a possible factor in the differences between Black and White individuals in testing situations related to employment. As a result, the study of stereotype threat has also expanded to vocational psychology, as there is an interest in the role that stereotype threat may play in the performance of women and minorities in simulated employment contexts (Chung, Ehrhart, Ehrhart, Hattrup, &

Solomon, 2010; Cullen, Harrison, & Sackett, 2004; Kirnan, Alfieri, Bragger, & Harris, 2009; Mayer & Hanges, 2003; Nguyen, O'Neal, & Ryan, 2003; Ployhart, Ziegert, & McFarland, 2003).

Although there is a growing body of literature that supports the evidence of stereotype threat, other researchers contend that even though stereotype threat may exacerbate racial differences in test performance it is not responsible for these differences (e.g., Sackett, 2003; Sackett, Harrison, & Cullen, 2004a, 2004b). A common argument is that the use of average scores may have minimized evidence of racial differences in test performance in low-threat conditions in early stereotype threat studies. It has also been suggested that unrealistic laboratory conditions may create higher levels of threat than would be present in real life situations. Other criticisms of stereotype threat research assert that stereotype threat cannot explain racial differences in IQ testing in situations where Blacks are the majority (Rushton & Jensen, 2005).

Despite these criticisms, interest in stereotype threat and its effects continues to grow with several studies finding evidence of this phenomenon in a variety of stereotyped groups including women (Elizaga & Markman, 2008; Huguet & Régner, 2009; Kiefer & Sekaquaptewa, 2007; Logel, Iserman, Davies, Quinn, & Spencer, 2009; Perry & Skitka, 2009; Spencer, Steele, & Quinn, 2002; Wout, Danso, Jackson, & Spencer, 2008), gay men (Bosson, Haymovitz, & Pinel, 2004), and older adults (Chasteen, Bhattacharyya, Horhota, Tam, & Hasher, 2005; Hess, Emery, & Queen, 2009; Hess & Hinson, 2006). Several recent studies have also addressed the method by which stereotype threat impairs performance. Schmader, Johns, and Forbes (2008) proposed a three-factor process model to explain the mechanism by which stereotype threat

influences performances. The model suggests that stereotype threat activates physiological stress responses, monitoring processes, and suppression processes which subsequently impact working memory efficiency. Impaired working memory efficiency leads to impaired performance on cognitive or sensorimotor tasks. Other researchers have explored the role of neuroscience (Derks, Inzlicht, & Kang, 2008) and the induction of regulatory foci (Seibt & Förster, 2004) in understanding the consequences of stereotype threat.

A Review of Stereotype Threat Literature

Several factors have been shown to impact the effects of stereotype threat including domain identification (Aronson, Lustina, Good, Keough, Steele, & Brown, 1999; Aronson & Steele, 2005; Keller, 2007; Lawrence, Marks & Jackson, 2010), stigma consciousness (Brown & Pinel, 2003), self-monitoring (Inzlicht, Aronson, Good, & McKay, 2007), anxiety (Bosson et al., 2004; Chung et al., 2010), and defensive pessimism (Perry & Skitka, 2009). The relevance of domain identification to stereotype threat has been examined in several studies. For example, Aronson et al. (1999) examined the role of domain identification in reaction to stereotype threat manipulation for White and Asian men. Only White men who were highly identified with mathematics were impacted by stereotype threat. Similarly, Lawrence et al. (2010) found that the higher the domain identification of Black students, the more they underperformed in a high threat in an ability diagnostic setting.

Anxiety also appears to impact the relationship between stereotype threat and task performance. Black participants in the control group were significantly less anxious than those in the stereotype threat group in a study that examined the association between

stereotype threat and motivational factors in an imagined job application situation (Nguyen et al., 2003). Bosson et al. (2004) found that nonverbal anxiety moderated the relationship between stereotype threat and performance in gay men interacting with children. Chung and colleagues (2010) explored state anxiety and self-efficacy as possible mediators of the stereotype threat effect. More specifically, they focused on individuals who were taking promotion examinations for police and firefighter departments and found that the scores of Black individuals were significantly lower than those of White individuals. Although the effects of stereotype threat were relatively modest, state anxiety and self-efficacy mediated the relationship between perceived stereotype threat and exam performance.

Racial identity refers to the meaning that being a member of an ethnic group holds for an individual and its salience to the self-concept of that individual (Phinney, 1996). Racial identity is a factor that might be expected to impact response to stereotype threat. Because stereotype threat is a fear of confirming negative stereotypes about one's own group, it stands to reason that racial identity might influence how individuals respond to such a threat. Racial identity has been associated with positive outcomes including resilience, academic achievement, and the ability to cope with racism (Quintana, 2007). Racial identity has also been shown to be a buffer for non-race related stressors (Boyd & Bee, 2006) and problem behaviors (Prelow, Bowman & Weaver, 2007; Pugh & Bry, 2007). The relationship of racial identity to stereotype threat, however, remains unclear. There is research that suggests a relationship between racial identity and experience of stereotype threat (Chung et al., 2010) as well as a relationship between test performance and racial identity (Ployhart et al., 2003). Davis, Aronson, and Salinas (2006) found that

while internalization attitudes were associated with higher test performance, racial identity did not impact susceptibility to stereotype threat for individuals in the high threat condition.

Several studies have been aimed at confirming or discounting evidence of stereotype threat in real-life and simulated laboratory environments. A meta-analysis by Nguyen and Ryan (2008) examined 116 stereotype threat studies and summarized the current status of the stereotype threat literature. The meta-analysis revealed evidence of stereotype threat effects with an overall effect size of .26 which is consistent with those found in a previous meta-analysis (Walton & Cohen, 2003). This comprehensive review of stereotype threat studies suggests that several experimental factors are likely to impact outcomes in stereotype threat studies. For example, ethnicity-based studies yielded more severe stereotype threat effects than gender-based ones. With regard to cues, subtle cues produced the smallest effect sizes and moderately explicit cues produced greater mean effect sizes than blatant ones. Explicit cue removal strategies led to stronger stereotype threat effects.

Self-Concept Structure and Stereotype Threat

Several factors have been suggested as possible moderators or mediators of the impact of stereotype threat (e.g., domain identification, anxiety). However, the possible role that self-concept structure may play in the consequences of stereotype threat has yet to be explored. The present study will examine self-concept structure and whether it moderates the responses of Black individuals to a stereotype threat manipulation. Based on what is known about evaluative organization, it is expected that Black individuals with compartmentalized and integrative self-concept structures may differ in their responses to

situations concerning stereotype threat. There is evidence that compartmentalization tends to be more likely to manifest in stressful situations or when resources are not available (Showers & Zeigler-Hill, 2003). Theory on the short-term and long-term implications of self-concept structure suggests that individuals are more likely to use strategies that have helped them to cope effectively in the past. For this reason, compartmentalization may be especially likely for Black individuals, as there is evidence that this strategy is applied to daily life for many Black individuals. However, it is important to note that a previous study concerning race and self-concept structure did not find differences between Black and White individuals in the tendency to use either compartmentalization or integration when organizing self-knowledge (Baker et al., 2010).

Evidence that compartmentalization may serve as a buffer that protects Black individuals from depressive symptoms when they use this organization strategy (Baker et al., 2010) raises the question of whether compartmentalization may also serve a protective function against other potential threats to psychological well-being such as stereotype threat. However, as noted previously, compartmentalization has been found to be associated with a vulnerability to dramatic shifts in mood and self-esteem as the salience of particular self-aspects shifts. This suggests that individuals with compartmentalized self-concept structures may be more susceptible to stereotype threat than individuals with integrative self-concept structures.

Research highlighting the role that social identities may play with regard to stereotype threat (Gresky, Eyck, Lord, & McIntyre, 2005; Rydell & Boucher, 2010; Rydell, McConnell, & Beilock, 2009) could also have important implications for the present study. Rydell and colleagues (2009) found that making positive and negative

identity information available reduced stereotype threat for female participants. Self-esteem and the number of social identities an individual has may also impact susceptibility to stereotype threat. Rydell and Boucher (2010) observed that being presented with an alternative positive social identity served as a buffer against stereotype threat for women with high self-esteem. This effect was not observed in women with low levels of self-esteem. Having female participants create self-concept maps which highlight multiple social identities has also been associated with decreased stereotype effects (e.g., Gresky et al., 2005). The findings in these studies suggest that self-concept and the ability to access information related to social identities have the potential to impact response to stereotype threat.

If making positive and negative aspects accessible lessens the degree of stereotype threat that individuals experience, then it is possible that compartmentalized self-concept structure – which by definition contains self-aspects that are completely positive and completely negative – may make individuals more susceptible to stereotype threat by making positive aspects inaccessible in a situation where negative aspects are activated. Research on the role that self-concept structure may play in the consequences of stereotype threat has the potential to shed additional light on the underlying mechanisms of the stereotype threat process and the impact of self-concept structure on the responses of Black individuals to race-related stress.

Hypotheses

H₁: Compartmentalization will be associated with fewer depressive symptoms and higher levels of self-esteem for both Black and White students who possess relatively positive self-concepts and high levels of differential importance. These predictions are

consistent with the basic model of evaluative organization which suggests that individuals with positively compartmentalized self-concept structures should experience relatively high levels of self-esteem and low levels of depression due to the fact that negative aspects will be less accessible and will be perceived as less important than positive ones.

H₂: Compartmentalization will be associated with increased vulnerability to stereotype threat among Black individuals. This hypothesis is based on the hidden vulnerability of compartmentalization which suggests that individuals with compartmentalized self-concept structures are more likely to experience dramatic shifts in mood and self-esteem in response to shifts in the salience of particular self-aspects. This suggests that individuals with compartmentalized self-concept structures may be more susceptible to stereotype threat effects due to the activation of negative self-aspects.

CHAPTER II

METHOD

Participants and Procedure

Participants were undergraduate students enrolled in psychology courses at a university in the Southern region of the United States who participated as partial fulfillment of a research participation requirement. A total of 1,926 participants completed Phase 1 of the study which involved completing online questionnaires. Of these 1,926 participants, 117 participants completed both Phase 1 (online questionnaires) and Phase 2 (laboratory session). Phase 1 and Phase 2 were listed as separate studies through the research participation registration website and participants who agreed to participate in Phase 1 of the study were not required to participate in Phase 2. Participants self-selected for Phase 1 and Phase 2 of the study. Participation in Phase 1 was a prerequisite for participation in Phase 2. As a result of the present study being concerned with the self-concept structure of Black and White individuals, 20 participants were excluded from the study who did not identify their race. Seven additional participants were excluded from the study who did not identify themselves as either Black or White (two Hispanic, one Asian, one Native American, and three “other”). An additional four participants were excluded because they appeared to have responded randomly to tasks during Phase 2. Data were analyzed for the remaining 87 participants (10 White men, 24 White women, seven Black men, 46 Black women). This number of participants was considered to be adequate because the results of an earlier power analysis had shown that at least 67 participants would be needed to detect effects of a moderate size. The mean age of this final sample was 20.88 ($SD = 4.32$) and the median age was 20. The median

family income for the sample was \$25,000-\$50,000. The average GPA was 3.22 ($SD = 1.95$) and the median GPA was 3.0. The sample included 30 freshmen (34.5%), 22 sophomores (25.3%), 21 juniors (24.1%), and 14 seniors (16%). Forty nine members of the sample were single/casually dating (57%), 28 were seriously dating, (32.2%), four were cohabitating (4.6%), one was engaged (1.1%), and four were married (4.6%).

Participation took place in two phases. During Phase 1, participants completed a set of pre-manipulation measures via a secure website. Participants were informed in the consent form that their participation was voluntary and that they could withdraw from the study at any time without penalty. The pre-manipulation measures included a brief demographic questionnaire (e.g., gender, ethnic/racial background, age, marital status, current GPA), a measure of self-esteem level, a measure of depressive symptoms, and other measures that are not relevant to the present study.

Phase 2 of the study involved a laboratory session that took place at least 24 hours after the completion of Phase 1. During Phase 2, participants were asked to complete a card sorting task that was used to assess evaluative organization. Then, participants were assigned to one of two experimental conditions that were intended to manipulate stereotype threat. Participants self-selected their dates of participation based on the available dates. Each lab session date was randomly assigned to high and low threat conditions. Based on the procedure employed by Perry and Skitka (2009), participants in the high stereotype threat condition were informed that they would complete tasks that would provide information concerning their intelligence, whereas participants in the low stereotype threat condition were informed that they would complete a task that measured problem solving ability. There were a total of 46 participants in the low threat condition

(26 Black participants, 20 White participants) and 41 participants in the high threat condition (28 Black participants, 13 White participants).

The instructions given to participants in the high stereotype threat condition were as follows:

You will be completing a problem solving task. We are interested in every individual's score because we will be comparing the individual scores to those of other students. Please answer all questions carefully and thoughtfully because this test is evaluative of your intellectual ability. We are also interested in how Black students score on this test relative to White students. Because we are comparing the scores of Blacks to those of Whites, each of your scores will also be used as an indicator of the intellectual ability of Blacks or Whites in general.

(Baker, 2011a, p. 2)

In contrast, the instructions given to participants in the low threat condition were as follows:

You will be completing a problem solving task. We are interested in every individual's score because we will be comparing the individual scores to those of other students. Please answer all of your questions carefully and thoughtfully because this test is evaluative of your personal problem solving ability. (Baker, 2011b, p. 2)

The participants were then asked to complete the Raven Standard Progressive Matrices (Raven, Raven, & Court, 2003) which served as a measure of intelligence for the participants in the high stereotype threat condition or problem solving ability for the participants in the low stereotype threat condition. After completing the task, participants

were asked to complete measures concerning their emotional states (i.e., the Positive and Negative Affect Scale [Watson, Clark, & Tellegen, 1988] and the State Trait Anxiety Scale [Spielberger, Gorsuch, & Lushene, 1970]) and their feelings of self-worth (i.e., the State Self-esteem Scale [Heatherton & Polivy, 1991]). Participants were then asked to complete a funneled debriefing in order to identify suspicion concerning the manipulation. Finally, participants were debriefed and thanked for their participation before they left the laboratory.

Pre-Manipulation Measures

Self-Descriptive Card Sorting Task. The self-descriptive card sorting task used by Showers (1992) was employed to measure the content and structure of the self-concept. Respondents were provided with a list of 40 potentially self-descriptive attributes. The deck contained 20 positive attributes (e.g., outgoing, successful, mature, hardworking) and 20 negative attributes (e.g., unloved, isolated, tense, irritable). Respondents were instructed to consider different aspects of themselves or their lives and to select attributes for each group such that each set of selected attributes described an aspect of themselves or their lives. Respondents were allowed to form as many or as few categories as needed to accomplish this task. Respondents were also free to use as many or as few attributes as necessary to adequately describe each self-aspect category. Attributes could be used to describe more than one self-aspect category and respondents were not required to use attributes that they did not consider to be self-descriptive. After completing the card sorting task, respondents rated the positivity, negativity, and importance of each self-aspect created during the card sorting task in order to assess their differential importance.

Evaluative organization (phi). The measure of evaluative organization was a phi coefficient (or Cramer's V; Cramer, 1974; Everitt, 1977) based on a chi-square statistic. Phi is an index of the tendency for positive and negative attributes to appear in separate self-aspects which can range from 0 (*perfectly integrative*) to 1 (*perfectly compartmentalized*). Phi is an index of the deviation from chance of the number of positive and negative attributes in each self-aspect, where chance is the proportion of positive and negative attributes across all of the self-aspects. The expected frequencies represent chance values for organizing positive and negative attributes without regard for whether they are positive or negative. For example, if the entire card sort contained 20% negative attributes, then a self-aspect containing 10 attributes would be expected to consist of approximately eight positive attributes and two negative attributes. The observed frequencies are obtained from the card sort. The chi-square statistic that is computed using these expected and observed frequencies is normalized by dividing by the number of attributes in the sort (N):

$$\phi = \sqrt{\frac{\chi^2}{N}}$$

Phi is independent of the number of self-aspects that respondents generated and the proportion of positive and negative attributes that respondents included in their card sorts (see Showers & Kevlyn, 1999 for additional computational details). In accordance with previous research (e.g., Showers, 1992), phi was only computed for respondents who included two or more negative attributes in their card sorts.

Differential Importance (DI). Based on the work of Pelham and Swann (1989), differential importance is a measure of the relative importance of positive and negative

self-aspects that is computed using the within-subject correlations of the ratings of each self-aspect (positivity minus negativity) and the importance assigned to it. Scores can range from -1 to + 1. Negative scores indicate that negative attributes are considered more important than positive ones, whereas positive scores indicate that positive attributes are considered more important than negative ones.

Proportion of negative attributes (neg). The proportion of negative attributes is a measure of self-concept content that is calculated by dividing the number of negative attributes appearing in a respondent's card sort by the total number of attributes used.

Beck Depression Inventory. Depressive symptoms were measured with the Beck Depression Inventory (BDI; Beck, Rush, Shaw, & Emery, 1979). The BDI is a 21-item self-report instrument. Each assesses a different attitude or symptom related to depression. Participants were asked to consider a group of graded statements that are weighted from 0 to 3 based on level of severity. A total score is derived by summing the weights corresponding to statements endorsed across the 21 items. The high internal consistency and test-retest reliability of the BDI is well-documented (Beck, Steer, & Garbin, 1988). Internal consistency for the present study was .93.

Rosenberg Self-Esteem Scale. The Rosenberg Self-Esteem Scale (Rosenberg, 1965) is a widely used and well validated measure of global self-regard (Blascovich & Tomaka, 1991; Demo, 1985). Participants indicated their level of agreement with each item by responding on scales ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Participants were instructed to respond based on how they generally feel about themselves. The scale consists of 10 items (i.e. "I am able to do things as well as most

other people”). Previous researchers have reported test-retest reliability above .80 (Rosenberg, 1965). The internal consistency for this measure was .89 in the present study.

Multigroup Ethnic Identity Measure-Revised. The Multigroup Ethnic Identity Measure (MEIM; Phinney & Ong, 2007) is a 12-item measure of ethnic identity. It includes items such as “I am active in organizations or social groups that include mostly members of my own ethnic group.” Respondents are asked to indicate the agreement with each statement on a scale ranging from 1 (strongly disagree) to 4 (strongly agree). Higher scores indicate higher levels of identification with one’s ethnic group. The internal consistency for this measure was .91 in the present study.

Post-Manipulation Measures

Raven Standard Progressive Matrices. The Raven Standard Progressive Matrices (SPM; Raven et al., 2003) was used as an indicator of intellectual performance. Five 12-item sets comprise the SPM. Each item includes an image with a missing piece. Below the image are several alternative pieces. Only one of the pieces is correct, and the respondent must choose the piece that correctly completes the image. The SPM has strong correlations with other measures of intelligence (Raven et al., 2003). Because it is a nonverbal test, the SPM is considered to minimize the role of culture in testing (Jensen, 1980; Raven et al., 2003). Participants were administered set C of the test. In the present study, the total number of correct items was used as an indicator of intellectual performance. Participants were administered either a paper-and-pencil or computer version of the SPM. Administration method was determined solely by availability of computers and was not a part of the lab manipulation. There were no significant

differences in the SPM scores of participants who took the paper-and-pencil version and those who took the computer version of the test.

State Self-Esteem Scale. Participants completed the State Self-esteem Scale (Heatherton & Polivy, 1991) which is a 20-item measure of momentary self-esteem. Items on this measure are rated on scales ranging from 1 (*not at all*) to 5 (*extremely*). Examples of items include “I am worried about whether I am regarded as a success or failure” and “I feel as smart as others.” The State Self-Esteem Scale includes three subscales: academic performance, social evaluation, and appearance. The State Self-Esteem Scale has been reported to have a test retest reliability of .92 (Heatherton & Polivy, 1991). Internal consistency for the Academic Performance scale was .83. Internal consistency for the Social Evaluation Scale was .83. Internal consistency for the Appearance scale was .88

Positive and Negative Affect Sale. Participants completed the Positive and Negative Affect Scale (Watson et al., 1988). The PANAS is a 20-item instrument that consists of two 10-item subscales: Positive Affect and Negative Affect. Participants were asked to respond to the stem “Indicate the extent to which you are feeling the following right now.” Participants will be asked to respond to each item using a scale ranging from 1 (*not at all*) to 5 (*extremely*). Internal consistency has been demonstrated for both the Positive Affect ($\alpha=.88$) and Negative Affect ($\alpha=.85$) scales (Watson et al., 1988). In the present study, internal consistency for the Positive Affect Scale was ($\alpha = .88$). Internal consistency for the Negative Affect was ($\alpha=.83$).

State-Trait Anxiety Inventory. Participants completed the state subscale of the State-Trait Anxiety Inventory (Spielberger, Gorusch, & Lushene, 1970) which is a 20-

item instrument that captures current feelings of anxiety (e.g., “I feel frightened”). Participants were asked to respond to each item using scales ranging from 1 (*almost never*) to 4 (*almost always*) such that higher scores indicated higher levels of state anxiety. The scale is reported to have an internal consistency ranging from .86 to .95 (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983). Internal consistency for the present study was .92.

CHAPTER III

RESULTS

Preliminary Analyses

Means, standard deviations, and ranges of Pre-and Post-Manipulation measures for all participants are presented in Table 1. The Black participants and the White participants in the sample did not differ significantly on gender ($\chi^2([1] = 3.46, p = .06)$). The Black participants and White participants in the sample differed significantly on age, academic classification, and family income. Black participants in the sample were significantly older than White participants ($M_{Black} = 21.65, M_{White} = 19.71; F[1,84] = 4.34, p = .04, \eta^2 = .05$). There were racial differences in academic classification ($\chi^2[3] = 11.15, p = .01$) such that a higher proportion of Black participants were classified as seniors than was the case for White participants. Reported family income also differed by race ($\chi^2[3] = 28.79, p < .001$) such that a higher proportion of White participants reported their family income to be above \$75,000 whereas a higher proportion of Black participants reported their family income to be less than \$50,000. There were no significant differences between Black participants and White participants on BDI scores ($M_{Black} = 7.68, M_{White} = 8.88, F[1,79] = .37, p = .54; \eta^2 = .01$). Means, standard deviations, and ranges of Pre-and Post-Manipulation measures for Black participants are presented in Table 2, and Means, standard deviations, and ranges of Pre-and Post-Manipulation Measures for White Participants are presented in Table 3. Correlations for all variables used in the final analyses are presented in Table 4.

Table 1

Means, Standard Deviations, and Ranges for Pre-Manipulation and Post-Manipulation Measures for all Participants

Variables	<i>M</i>	<i>SD</i>	Range	Possible Range
Evaluative Organization (EO)	0.78	0.25	0.03-1.00	0.00-1.00
Differential Importance (DI)	0.50	0.45	-0.52-1.00	-1.00-1.00
Negative Attributes	0.25	0.17	0.00-0.69	0.00-1.00
State Self-Esteem Scale (SSES)				
Academic	4.13	0.71	2.14-5.00	1.00-5.00
Social	3.71	0.86	1.14-5.00	1.00-5.00
Appearance	15.91	2.91	1.50-5.00	1.00-5.00
State Anxiety Inventory (STAI)	1.71	0.57	1.00-3.70	1.00-4.00
Positive Negative Affect Schedule (PANAS)				
Positive Affect	3.41	0.86	1.10-5.00	1.00-5.00
Negative Affect	1.47	0.58	1.00-4.00	1.00-5.00
Rosenberg Self-Esteem Scale (RSES)	4.17	0.74	2.30-5.00	1.00-5.00
Beck Depression Inventory (BDI)	8.19	8.69	0.00-42.00	0.00-63.00
Raven Standard Progressive Matrices Total (SPM)	9.08	1.55	6.00-12.00	0.00-12.00

Table 2

Means, Standard Deviations, and Ranges for Pre-Manipulation and Post-Manipulation Measures for Black Participants

Variables	<i>M</i>	<i>SD</i>	Range	Possible Range
Evaluative Organization (EO)	0.67	0.25	0.03-1.00	0.00-1.00
Differential Importance (DI)	0.53	0.46	-0.52-1.00	-1.00-1.00
Negative Attributes	0.24	0.17	0.00-0.69	0.00-1.00
State Self-Esteem				
Academic	30.08	4.76	2.86-5.00	1.00-5.00
Social	21.62	4.64	2.00-35.00	1.00-5.00
Appearance	15.91	2.91	1.50-18.00	1.00-5.00
State Anxiety Inventory (STAI)	1.58	0.54	1.00-3.25	1.00-4.00
Positive Negative Affect Schedule (PANAS)				
Positive Affect	3.44	0.86	1.10-5.00	1.00-5.00
Negative Affect	1.43	0.61	1.00-4.00	1.00-5.00
Rosenberg Self-Esteem Scale (RSES)	4.31	0.70	2.90-5.00	1.00-5.00
Beck Depression Inventory (BDI)	7.68	8.98	0.00-42.00	0.00-63.00
Raven Standard Progressive Matrices Total (SPM)	9.08	1.55	6.00-12.00	0.00-12.00

Table 3

Means, Standard Deviations, and Ranges for Pre-Manipulation and Post-Manipulation Measures for White Participants

Variables	<i>M</i>	<i>SD</i>	Range	Possible Range
Evaluative Organization (EO)	0.69	0.26	0.09-1.00	0.00-1.00
Differential Importance (DI)	0.46	0.44	-0.50-1.00	-1.00-1.00
Negative Attributes	0.27	0.16	0.00-0.64	0.00-1.00
State Self-Esteem				
Academic	4.04	0.73	2.14-5.00	1.00-5.00
Social	3.49	0.83	1.14-4.86	1.00-5.00
Appearance	3.46	0.85	1.67-4.43	1.00-5.00
State Anxiety Inventory (STAI)	1.90	0.57	1.00-3.70	1.00-4.00
Positive Negative Affect Schedule (PANAS)				
Positive Affect	3.37	0.88	1.40-4.90	1.00-5.00
Negative Affect	1.54	0.53	1.00-3.30	1.00-5.00
Rosenberg Self-Esteem Scale (RSES)	3.96	0.75	2.30-5.00	1.00-5.00
Beck Depression Inventory (BDI)	8.88	8.35	0.00-35.00	0.00-63.00
Raven Standard Progressive Matrices Total (SPM)	10.32	1.34	7.00-12.00	0.00-12.00

Table 4

Correlations among Independent and Dependent Variables for Study Participants

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Race	--	-.05	.03	-.07	.07	-.08	-.21	-.26	.28*	-.04	.09	-.23*	.70	.39**
2. Experimental Condition		--	.06	.00	-.23*	.22	.10	.03	-.15	.07	-.18	.03	.09	.19
3. Evaluative Organization			--	.29	.34	-.05	-.07	-.14	.08	.17	.05	-.19	.07	.04
4. Differential Importance				--	.02	.20	.26*	.19	-.32**	.21	-.27*	.20	-.17	-.18
5. Negative Attributes					--	-.30**	-.46**	-.39**	.46**	-.18	.43**	-.21*	.10	.06
6. State Academic Self-Esteem						--	.54**	.37**	-.66**	.21	-.56**	.24*	-.37**	.15
7. State Social Self-Esteem							--	.53**	-.60**	.17	-.54**	.27*	-.32**	-.03
8. State Appearance Self-Esteem								--	-.51**	.28**	-.36**	.51**	-.38**	-.20
9. State Anxiety Inventory									--	-.36**	.74**	-.28**	.33**	.03
10. Positive Affect										--	-.10	.23*	-.12	-.03
11. Negative Affect											--	-.08	.19	-.03
12. RSES												--	-.57**	-.07
13. BDI Total													--	.02
14. SPM Total														--

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Replicating the Basic Model of Evaluative Organization

Hypothesis 1 predicted that compartmentalization would be associated with fewer depressive symptoms and higher levels of self-esteem for both Black participants and

White students who possess relatively positive self-concepts and high levels of differential importance. Two separate hierarchical multiple regression analyses were performed to test this hypothesis

The purpose of the first hierarchical regression was to determine whether the basic model of evaluative organization was replicated in this study. Preliminary analyses included a hierarchical multiple regression in which Rosenberg Self-Esteem Scale scores were regressed onto race, MEIM search subscale scores, MEIM affirmation subscale scores evaluative organization, differential importance, and proportion of negative attributes. Gender, age, income MEIM search subscale scores, MEIM affirmation subscale scores were dropped from the final analyses because they did not have an impact on the results.

In the final analyses, Rosenberg Self-Esteem Scale scores were regressed onto race, evaluative organization, differential importance, and proportion of negative attributes. Race, evaluative organization, differential importance, and proportion of negative attributes were entered on the first step. Two-way interactions of evaluative organization, race, and differential importance were entered on the second step. The three-way interaction of race, evaluative organization and differential importance was entered on the third step. The results of this hierarchical multiple regression are presented in Table 5. The overall model concerning self-esteem was not significant ($F [8, 61] = .95$; $p = .49$). In fact, none of the predictors reached traditional levels of significance (e.g. $p < .01$ or $.05$) in this analysis.

Table 5

Summary of Hierarchical Regression Analysis for Variables Predicting Rosenberg Self-Esteem Scale Scores (N=87)

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Race	-0.22	0.17	-0.16	-0.22	0.17	-0.16	-0.19	0.18	-0.14
Evaluative organization (EO)	-0.21	0.36	-0.07	-0.26	0.50	-0.09	-0.25	0.51	-0.09
Differential Importance (DI)	0.22	0.20	0.14	0.23	0.25	0.14	0.22	0.25	0.14
Negative Attributes	-0.87	0.57	-0.19	-0.92	0.62	-0.20	-0.84	0.64	-0.18
EO x Race				0.23	0.72	0.06	0.19	0.72	0.05
DI x Race				-0.05	0.44	-0.02	-0.02	.44	-0.01
EO x DI				0.54	0.84	0.08	0.77	0.95	0.12
EO x DI x Race							-1.09	2.06	-0.08
R^2			0.10			0.11			0.11
<i>F</i> for change in R^2			1.76			0.19			0.28

The second hierarchical multiple regression analysis was conducted in an attempt to replicate previous findings of self-concept structure moderating the relationship between race and depressive symptoms. In preliminary analyses, Beck Depression

Inventory scores were regressed onto race, gender, age, income, MEIM search subscale scores, MEIM affirmation subscale scores, evaluative organization, differential importance, and proportion of negative attributes. Gender, age, income, MEIM search subscale scores, MEIM affirmation subscale scores were not included in the final analyses because they did not have an impact on the results. According to hypothesis 1, race, differential importance, and proportion of negative attributes were entered on the first step. The two-way interaction of race and evaluative organization and the two way interaction of differential importance and race were entered on step 2. The three-way interaction of race, evaluative organization, and differential importance was entered on step 3. The results of the regression analysis are presented in Table 6. As with the analysis concerning self-esteem, the overall model for the BDI did not approach conventional levels of significance ($F [7, 56] = .75; p = .63$) nor were any of the predictors significant.

Hypothesis 1 was not supported. There was no evidence that compartmentalized self-concept structure was associated with higher RSES scores. There was also no evidence that compartmentalized self-concept structure was associated with fewer depressive symptoms in Black participants and White participants.

Table 6

Summary of Hierarchical Regression Analysis for Variables Predicting Beck Depression Inventory Scores (N=87)

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Race	1.10	1.98	0.07	1.29	2.03	0.08	0.22	2.17	0.01
Evaluative organization (EO)	0.91	4.51	0.03	3.68	6.46	0.11	4.04	6.42	0.13
Differential Importance (DI)	-1.72	2.44	-0.10	-1.00	3.14	-0.06	-1.08	3.12	-0.06
Negative Attributes	8.65	6.80	0.17	7.50	7.30	0.15	5.03	7.48	0.10
EO x Race				-4.63	8.81	-0.10	-4.11	8.75	-0.09
DI x Race				-2.14	5.22	-0.08	-2.76	5.20	-0.10
EO x DI				0.99	10.33	0.01	-6.66	11.74	-0.09
Race x EO x DI							32.04	23.88	0.22
R ²			0.05			0.06			0.09
F for change in R ²			0.79			0.22			1.8

Does Evaluative Organization Moderate Responses to Stereotype Threat?

Hypothesis 2 predicted that compartmentalization would be associated with increased vulnerability to stereotype threat in Black individuals. Preliminary analyses

involved a hierarchical multiple regression in which the total score for the SPM was regressed onto race, gender, age, GPA, threat condition, evaluative organization, differential importance, and proportion of negative attributes. Gender, age, income, MEIM search, and MEIM affirmation were not included in the final analyses because they failed to emerge as main effects or to moderate other associations.

In the final analyses, SPM total scores were regressed onto race, threat condition, evaluative organization, differential importance, and proportion of negative attributes. Race, threat condition, evaluative organization, differential importance, and proportion of negative attributes were entered on the first step. The following two-way interactions were entered on Step 2: evaluative organization x race, evaluative organization x experimental condition, and experimental condition x race. The three-way interaction of race, evaluative organization, and experimental condition was entered on Step 3. The results of the regression analysis are presented in Table 7.

The overall regression model approached conventional levels of significance ($F [9, 60] = 1.88, p = .07$). However, none of the main effects or interaction terms reached significance. A follow-up One-Way Analysis of Variance (ANOVA) revealed no significant difference in the SPM total scores of Black participants in the high threat condition and the SPM total scores of Black participants in the low threat condition ($M_{high} = 9.46; M_{low} = 8.70, F [1, 51] = 3.29, p = .08; \eta^2 = .06$). Hypothesis 2 was not supported. The present study found no evidence of stereotype threat effect and, in fact, found marginal support for a “stereotype lift” effect among Black participants in the high threat condition.

Table 7

Summary of Hierarchical Regression Analysis for Variables Predicting Raven Standard Progressive Matrices Total Scores (N=87)

Variable	Model 1			Model 2			Model 3		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Race	1.18	0.35	0.38	1.26	.49	0.41	1.25	0.49	0.40
Experimental Condition (EC)	0.56	0.35	0.18	0.64	.47	0.21	0.61	0.47	0.20
Evaluative organization (EO)	-0.17	0.35	-0.03	0.60	1.35	0.10	-0.08	1.51	-0.01
Differential Importance (DI)	-0.41	0.42	-0.12	-0.42	.44	-0.12	-0.45	.044	-0.13
Negative Attributes(NA)	1.41	1.23	0.14	1.34	1.25	0.13	1.26	1.26	0.12
EO x Race				-1.42	1.48	-0.15	-0.14	1.96	-0.02
EC x Race				-0.11	.74	-0.03	-0.02	0.74	0.00
EC x EO				-0.22	1.48	-0.02	1.03	1.94	0.11
Race x EC x EO							-3.00	2.99	-0.19
R^2			.19			.21			.22
F for change in R^2			3.08*			.32			1.00

Analyses Concerning Post-Manipulation Measures of Self-Esteem and Affect

Several exploratory analyses were conducted to further examine the results of this study. A series of ANOVAs were conducted to determine whether there were significant

differences between Black participants and White participants on relevant variables. Black participants had lower Raven total scores than White participants ($M_{Black} = 9.08$; $M_{White} = 10.32$, $F[1, 85] = 14.81$, $p < .001$, $\eta^2 = .15$). Black participants also had lower levels of state anxiety during the lab sessions ($M_{Black} = 1.58$; $M_{White} = 1.90$, $F[1, 82] = 6.75$, $p = .01$, $\eta^2 = .08$). Black participants had higher scores on state self-esteem appearance during the lab session ($M_{Black} = 3.96$; $M_{White} = 3.46$, $F[1, 84] = 5.98$, $p < .02$, $\eta^2 = .07$) and higher scores on the state self-esteem social subscale during the lab session ($M_{Black} = 3.86$; $M_{White} = 3.49$, $F[1, 84] = 3.98$, $p = .05$, $\eta^2 = .05$).

Regression analyses were conducted to examine predictors for state academic self-esteem, state appearance self-esteem, state social self-esteem, positive affect, negative affect, and state anxiety during the lab session. Separate hierarchical regression analyses were conducted for each of these variables. Race, threat condition, evaluative organization, differential importance, and proportion of negative attributes were entered on the first step. The two-way interactions of experimental condition, race, and evaluative organization were entered on Step 2. The three-way interaction of experimental condition, race, and evaluative organization was entered on Step 3.

State Academic Self-Esteem. A hierarchical multiple regression was conducted using post-manipulation state academic self-esteem as the dependent variable. The overall regression model approached conditional levels of significance ($F[9, 59] = 1.87$, $p = .08$). The only significant predictors to emerge from this model were proportion of negative attributes ($\beta = -0.31$, $t = -2.45$, $p = .02$, $d = -.57$) and the interaction of evaluative organization and race ($\beta = -0.06$, $t = -2.45$, $p = .02$, $d = -.57$). That is, the main effect of

experimental condition did not emerge from this analysis nor did any of its interaction terms.

State Social Self-Esteem. A hierarchical multiple regression was conducted using post-manipulation state social self-esteem scores as the dependent variable. The model significantly predicted state social self-esteem scores ($F [9, 60] = 3.05, p < .01$).

Proportion of negative attributes was the only significant predictor of state social self-esteem ($\beta = -0.47, t = -4.08, p < .001, d = -.94$). However, the main effect of experimental condition did not emerge from this analysis nor did any of its interaction terms.

State Appearance Self-Esteem. A hierarchical multiple regression was conducted using post-manipulation state appearance self-esteem scores as the dependent variable. The overall regression model was significant ($F [9, 60] = 3.56, p = .001$). The only significant predictors of post manipulation state appearance self-esteem were the proportion of negative attributes ($\beta = -0.42, t = -3.69, p < .001, d = -.85$) and the three-way interaction of race, experimental condition, and evaluative organization ($\beta = .38, t = 2.20, p = .03, d = .51$). The predicted values for this three-way interaction are presented in Figure 1. Black participants with compartmentalized self-concept structures who were in the low threat condition had significantly higher scores for state appearance self-esteem than Black participants with integrative self-concept structure in the same experimental condition. Black participants with integrative self-concept structure who were in the low threat condition had lower state appearance self-esteem scores than Black participants with integrative self-concept structure who were in the high threat condition. White participants with integrative self-concept structure who were in the low threat condition

had significantly higher state appearance self-esteem scores than White participants with integrative self-concept structure who were in the high threat condition.

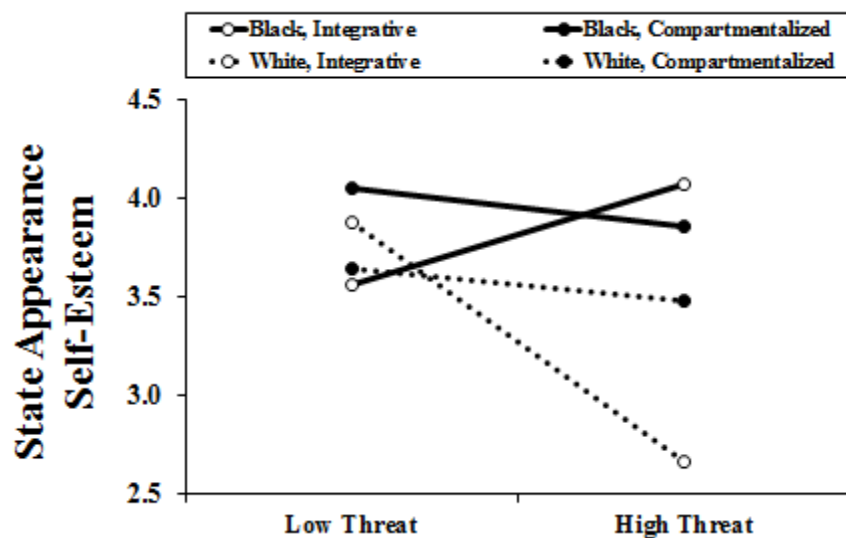


Figure 1. Predicted values for state appearance self-esteem illustrating the interaction of experimental condition, race, and evaluative organization at values that are one standard deviation above and below their respective means.

Positive Affect. A hierarchical multiple regression was conducted using positive affect as the dependent variable. The overall regression model was significant ($F [9, 59] = 2.45, p = .02$). Race ($\beta = .40, t = 2.63, p = .01, d = .61$), experimental condition ($\beta = .34, t = 2.25, p = .03, d = .52$), evaluative organization ($\beta = .54, t = 2.32, p = .02, d = .54$), and the interaction of race and experimental condition ($\beta = -0.56, t = -3.23, p < .01, d = -.75$) emerged as significant predictors of positive affect. The predicted values for the interaction of race and experimental condition are presented in Figure 2. Black participants in the low threat condition had significantly lower levels of positive affect than White participants in the low threat condition. White participants in the high threat condition had significantly lower levels of positive affect than Black participants in the high threat condition. Being in the high threat condition resulted in higher levels of

positive affect for Black participants but was associated with lower levels of positive affect for White participants.

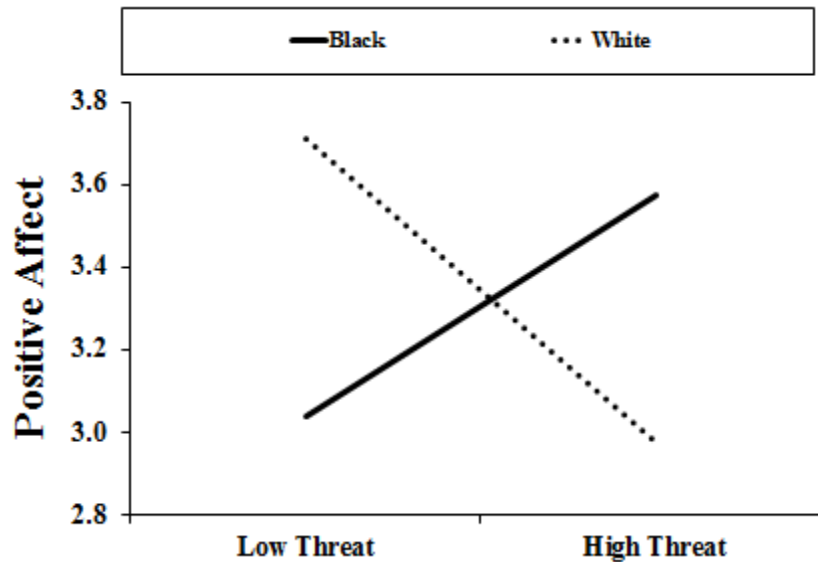


Figure 2. Predicted values for positive affect illustrating the interaction of experimental condition and race.

Negative Affect. A hierarchical multiple regression was conducted using negative affect as the dependent variable. The overall regression model was significant ($F [9, 59] = 2.84, p = .01$). Proportion of negative attributes ($\beta = .44, t = 3.78, p < .001$) was the only significant predictor of negative affect.

State Anxiety. A hierarchical multiple regression was conducted using state anxiety as the dependent variable. The overall regression model was significant ($F [9, 59] = 3.03, p = .01$). Proportion of negative attributes was a significant predictor of state anxiety ($\beta = .41, t = 3.54, p = .001$). That is, participants with higher proportion of negative attributes had higher levels of state anxiety during the lab session.

CHAPTER IV

DISCUSSION

Discussion of Results

The first hypothesis predicted that compartmentalized self-concept structure would be associated with higher levels of self-esteem and fewer depressive symptoms, replicating the basic model of evaluative organization. This hypothesis was not supported. The results of the present study illustrate the complex nature of the relationship between self-concept structure, race, and aspects of psychological adjustment (e.g., self-esteem, depressive symptoms). Given that a preliminary study suggested that self-concept structure may provide a buffer against depressive symptoms (Baker et al., 2010) evidence regarding this relationship is mixed and additional research is needed to determine the exact nature of this relationship.

The second hypothesis predicted that compartmentalized self-concept structure would be associated with increased susceptibility to stereotype threat in Black participants. This hypothesis was not supported. However, it is important to note that there was no evidence of stereotype threat in the current study which prevented an adequate test of this hypothesis.

To further examine possible reasons why there were not stereotype threat effects, it is helpful to consider the necessary conditions for stereotype threat to occur. As previously mentioned, stereotype threat theory suggests that three factors must be present in order for stereotype threat to occur: identification with the stereotyped group, diagnosticity, and identification with the domain being tested (Steele et al., 2002). This suggests that Black students who are high achievers or who are in academically

challenging environments have the potential to be most impacted by stereotype threat because they are highly identified with the domain of academics. It has been suggested that Black students who are constantly confronted with racial stereotypes may respond by disidentifying with academics which may lead to underperformance and subsequent separation from the domain (Steele, 1997).

There is a possibility that lack of identification with the domain of academics may have made Black participants in this study less susceptible to stereotype threat. However, the mean reported GPA for Black participants in this study was 3.12 which was not significantly different from the mean GPA of White participants. There were also no race differences in state academic self-esteem. It would be expected that if the Black participants were disidentified with the domain of academics they would have lower scores on state academic self-esteem and lower GPAs. However, it is important to note that some of the most frequently cited stereotype threat studies (e.g., Steele, 2003; Steele & Aronson, 1995) are conducted at elite universities or universities that are more competitive than the university where the present study was conducted. Thus, the present sample may have included individuals who were less identified with academics than students at elite universities. Additionally, the present study relied on self-reported GPA scores from participants. Having additional measures of domain identification and confirmation of self-reported GPAs would make it possible to further examine the role of domain identification in the response of Black individuals to stereotype threat. It is also important to consider that disidentification is a process that likely occurs over time and that in order to demonstrate disidentification with a domain there must be evidence that

an individual was previously identified with a domain and is no longer identified (Cokley, 2002).

Diagnosticity is another necessary condition for stereotype threat to occur (Steele et al., 2002). Diagnosticity is established by providing cues concerning the nature of the task being performed. Research on stereotype threat suggests that moderately explicit cues produce the highest level of threat and that explicit cue removal strategies in the low threat condition produce the lowest level of threat (Nguyen & Ryan, 2008). The present study fulfilled both of these criteria. However, there was no evidence of stereotype threat.

A factor that is closely related to diagnosticity is the test difficulty. Participants in the present study scored relatively high on the SPM task and may not have been impacted by stereotype threat due to its lack of difficulty. Results from a meta-analysis on stereotype threat suggested that studies that use difficult tasks are more likely to demonstrate stereotype threat effects (Nguyen & Ryan, 2008). It has been suggested that stereotype works by interfering with mental processes (Schmader et al., 2008) and may be more likely to interfere when a task is challenging (Nguyen & Ryan, 2008). This suggests that it is not only verbal instructions that influence the level of the threat but also task difficulty. Several stereotype threat studies have used the Raven Advanced Progressive Matrices which is a more difficult version of the test (e.g., Brown & Day, 2006; Croizet et al., 2004; Mayer & Hanges, 2003; McKay, Doverspike, Bowen-Hilton, & Martin, 2002). It is important to consider whether the use of a more difficult set of SPM items or a different measure of intellectual performance may have impacted the stereotype threat manipulation. Additionally, the participants in this study completed only one set of SPM items, and there may be limited generalizability to performance on the

full measure. Another consideration regarding the use of the SPM is that White participants in this study had higher Raven scores than Black participants. However, in preliminary analyses, after controlling for income, gender, age and condition, race was not a significant predictor of Raven scores. Socioeconomic status was the only significant predictor of scores on the SPM. It has been suggested that the SPM is less sensitive to cultural factors than other measures of intelligence (Jensen, 1980; Raven et al., 2003). Results of the current study suggest that Raven scores may nevertheless be impacted by cultural factors.

Completion of the card sorting task immediately before the stereotype threat manipulation is another factor that could potentially have impacted the results in this study. Completing the card sorting task may have made positive self-aspects more accessible and may have thus impacted the response of participants to the stereotype threat manipulation. Previous research has found that completing identity maps decreased responses to stereotype threat in women with high self-esteem (Gresky et al., 2005). The card sorting task in the present study may have served a similar function. This challenge may be addressed in future studies by completing the card sorting task and stereotype threat manipulation in separate laboratory sessions or by including a distractor task between the card sorting task and the stereotype threat manipulation. It may also be helpful to measure state self-esteem, positive affect, and negative affect immediately after the card sorting task and again after the stereotype threat in order to shed more light on the impact of the card sorting task on affect and state self-esteem.

Identification with the stereotyped group is also a necessary condition for stereotype threat (Steele et al., 2002). In the present study, racial/ethnic identity was

measured by scores on the MEIM search and affirmation subscales. Racial identity was not a significant predictor of performance on the SPM. Black participants had significantly higher scores on MEIM than White participants. However, this did not appear to impact self-esteem or depressive symptoms. It also did not predict performance on the SPM.

Black participants in the present study had lower levels of state anxiety than White participants. There were no differences in reported trait anxiety levels of Black participants and White participants. This finding is inconsistent with the results of previous studies concerning stereotype threat and state anxiety (e.g., Chung et al., 2010; Nguyen et al., 2003). However, the lower levels of state anxiety reported by Black participants may provide a potential explanation for why there was no evidence of stereotype threat. Another possible explanation is that while Black participants in the high threat experimental condition did not recognize themselves as anxious, there may have been nonverbal symptoms of anxiety present. Bosson et al. (2004) found that while participants in the stereotype threat condition did not differ from control participant on reported levels of anxiety, participants in the high threat condition were rated as significantly more anxious when behavioral measures of anxiety were employed. Nonverbal anxiety is more challenging to assess in this sort of setting but the inclusion of this sort of measure may provide additional information concerning the relationship of anxiety to stereotype threat susceptibility.

Black participants in the high threat experimental condition had higher levels of positive affect than Black participants in the low threat condition. Additionally, the interaction of condition and race was a significant predictor of positive affect. That is,

Black participants in the high threat condition had higher levels of positive affect than Black participants in the low threat condition. Conversely, White participants in the low threat condition had higher levels of positive affect than White participants in the high threat condition. This is different from what one would expect based on past stereotype threat research. Based on stereotype threat theory and previous studies, lower levels of positive affect were expected for Black participants in the high threat condition. This suggests that Black students and White students experience different emotional reactions in response to being in high and low threat situations. The results of this study are consistent with previous studies that have documented significantly higher levels of self-esteem in Black participants. Several reasons for these differences have been proposed, including racial identity. Preliminary analyses in the present study found that racial identity was not a significant predictor of self-esteem scores of participants. This suggests that the differences in self-esteem are likely due to other factors. Black participants also had higher scores on state appearance self-esteem during Phase 2 of the study, and the interaction of race, evaluative organization, and condition was a significant predictor of state appearance self-esteem. This suggests that self-concept structure may impact certain domains of state self-esteem in response to stressful situations and may impact Black individuals and White individuals in different ways. Black participants with integrative self-concept structure appeared to be able to more easily access positive self-aspects, specifically related to their appearance, resulting in higher state appearance self-esteem scores. For White individuals with an integrative self-concept structure, this did not seem to occur. This finding provides additional support for the complex relationship between race and self-concept structure. It also adds to the body of research on factors that

influence how Black individuals and White individuals respond in situations where stereotype threat is introduced.

It is notable that there were no significant differences between the scores of Black participants and the scores of White participants on the state academic self-esteem scale. This suggests that the Black self-esteem advantage has limitations and domains for which specific negative stereotypes exist may be more sensitive to the impact of negative stereotypes than overall self-esteem.

Limitations

There are several important limitations to this study. An important difference between laboratory settings and high stakes testing is that the scores of participants do not have the sort of personal consequences in research settings as they do in high stakes testing environments. Performance on tests such as the ACT and GRE directly impact students whereas completing tasks in a laboratory setting may not present the same level of threat.

Another potential limitation is sample size. Although the sample size is above what is suggested to detect a medium effect size, it is possible that having a larger sample size would have allowed for a greater range in domain identification and subsequently impacted the results of the study. Another consideration is that the results of the study may have been influenced by the fact that the majority of the participants in this study were women. Men made up 19.3% of the participants in this study and Black men made up only 8% of the participants in the study. Black men are underrepresented on college campuses and as a result are underrepresented in psychological research that takes place

on those campuses. This could impact the generalizability of the results to male college students.

Implications

To date, no stereotype studies have examined the role of region in the impact of stereotype threat. The present study took place at a university in the Southern region of the United States. Black individuals who live in the Southern region may be more likely to encounter stereotypes about their race. Although Black students make up a large percentage of the population in Southern states, Black students in the South are perhaps more likely to be confronted with negative stereotypes about their race on a regular basis. This may impact their responses to stressful situations concerning negative racial stereotypes and may explain why the Black participants in this study did not respond to the stereotype threat manipulation in the expected manner.

Future research in this area may focus on comparisons of stereotype threat effects based on regional differences, level of academic rigor of the academic institution, and school demographics. The students at this southern university did not respond as expected to this stereotype threat manipulation and it is important to determine whether these results may be generalizable to similar settings. For example, determining how Black individuals who attend competitive historically Black colleges and universities (HBCUs) perform in response to stereotype threat manipulations compared to Black individuals who attend highly competitive predominantly White institutions may shed more light on the factors impacting stereotype threat. Students who attend institutions that are highly competitive or academically rigorous are more likely to be identified with the academic domain. It may be helpful to find out whether Black students who attend

HBCUs respond to stereotype threat in ways that are similar to those attending integrated universities. Examining the impact of stereotype threat as a function of region of the country may shed light on whether increased or decreased exposure to negative stereotypes has the potential to impact how Black students respond to stereotype threat.

APPENDIX A

PHASE 1 INFORMED CONSENT

**THE UNIVERSITY OF SOUTHERN MISSISSIPPI
AUTHORIZATION TO PARTICIPATE IN RESEARCH PROJECT**

Consent is hereby given to participate in the study titled: Personality SP11

PURPOSE: The present study is designed to examine the association between personality and problem solving skills. Results will be used to guide later research on personality.

DESCRIPTION OF STUDY: Participation will consist of completing several brief questionnaires via the. The internet-based questionnaires should take approximately 15-20 minutes to complete. Questionnaires completed via the internet will concern your feelings, attitudes, behaviors, and experiences.

BENEFITS: Participants are not expected to directly benefit from your participation. However, it is hoped that this study will contribute to our understanding of personality.

RISKS: No foreseeable risks, beyond those present in routine daily life, are anticipated in this study. If participants find they are distressed by completing these questionnaires, they should notify the researcher immediately.

CONFIDENTIALITY: You will place your name on the informed consent form and the internet-based questionnaires. At the conclusion of data collection for this study, all identifying information will be deleted. Data gathered from the present study will be stored in a secure location for six years, at which time it will be destroyed. Findings will be presented in aggregate form with no identifying information to ensure confidentiality.

PARTICIPANT ASSURANCE: Whereas no assurance can be made concerning results that may be obtained (since results from investigational studies cannot be predicted) the researcher will take every precaution consistent with the best scientific practice. Participation in this project is completely voluntary, and participants may withdraw from this study at any time without penalty, prejudice, or loss of benefits. Questions concerning the research should be directed to Dr. Virgil Zeigler-Hill at (601) 266-4596 (or e-mail at virgil@usm.edu). This project and this consent form have been reviewed by the Institutional Review Board, which ensures that research projects involving human participants follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, Box 5147, Hattiesburg, MS 39406, (601) 266-6820. A copy of this form will be given to the participant.

If you become distressed as a result of your participation in this study, then you should contact an agency on-campus or in the surrounding community that may be able to provide services for you. A partial list of available resources is provided below:

University of Southern Mississippi Counseling Center	(601) 266-4829
Pine Belt Mental Healthcare	(601) 544-4641
Pine Grove Recovery Center	(800) 821-7399
Forrest General Psychology Services	(601)288-4900
Lifeway Counseling Service Incorporated	(601)268-3159
Behavioral Health Center	(601)268-5026
Hope Center	(601)264-0890

If you experience distress as a result of your participation in this study, please notify Dr. Virgil Zeigler-Hill (virgil@usm.edu).

Printed Name of the Research Participant

Signature of the Research Participant

Date

Signature of the Person Explaining the Study

Date

APPENDIX B

PHASE 2 INFORMED CONSENT

THE UNIVERSITY OF SOUTHERN MISSISSIPPI

AUTHORIZATION TO PARTICIPATE IN RESEARCH PROJECT

Consent is hereby given to participate in the study titled: Personality S11

PURPOSE: The present study is designed to extend our understanding of personality and physiological responses. Results will be used to guide later research on personality.

DESCRIPTION OF STUDY: Participation will consist of a 60-minute laboratory session. Participants will complete several tasks and questionnaires. The tasks and questionnaires completed during this session will concern your feelings, attitudes, behaviors, and experiences.

BENEFITS: Participants are not expected to directly benefit from your participation. However, it is hoped that this study will contribute to our understanding of personality.

RISKS: No foreseeable risks, beyond those present in routine daily life, are anticipated in this study. If participants find they are distressed by any aspect of the laboratory session, they should notify the researcher immediately.

CONFIDENTIALITY: You will place your name on the informed consent form. At the conclusion of data collection for this study, all identifying information will be deleted. Data gathered from the present study will be stored in a secure location for six years, at which time it will be destroyed. Findings will be presented in aggregate form with no identifying information to ensure confidentiality. Video recordings of the session will be used solely for professional purposes (e.g., training purposes, behavioral coding).

PARTICIPANT ASSURANCE: Whereas no assurance can be made concerning results that may be obtained (since results from investigational studies cannot be predicted) the researcher will take every precaution consistent with the best scientific practice. Participation in this project is completely voluntary, and participants may withdraw from this study at any time without penalty, prejudice, or loss of benefits. Questions concerning the research should be directed to Dr. Virgil Zeigler-Hill at (601) 266-4596 (or e-mail at virgil@usm.edu). This project and this consent form have been reviewed by the Institutional Review Board, which ensures that research projects involving human participants follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, Box 5147, Hattiesburg, MS 39406, (601) 266-6820. Participants may request a copy of this form.

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If you experience distress as a result of your participation in this study, please notify Dr. Virgil Zeigler-Hill (virgil@usm.edu).

Printed Name of the Research Participant

Signature of the Research Participant

Date

Signature of the Person Explaining the Study

Date

APPENDIX C

PRE-MANIPULATION MEASURES

ROSENBERG SELF-ESTEEM SCALE

Directions: Indicate how much you agree with each of the statements **IN GENERAL** by darkening the appropriate circle on your answer sheet.

1.....2.....3.....4.....5
 Strongly Disagree Strongly Agree

1. I feel that I'm a person of worth, at least on an equal plane with others.
2. I feel that I have a number of good qualities.
3. All in all, I am inclined to feel that I am a failure.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I take a positive attitude toward myself.
7. On the whole, I am satisfied with myself.
8. I wish I could have more respect for myself.
9. I certainly feel useless at times.
10. At times, I think I am no good at all.

BECK DEPRESSION INVENTORY

1.
 - 0 I do not feel sad.
 - 1 I feel sad
 - 2 I am sad all the time and I can't snap out of it.
 - 3 I am so sad and unhappy that I can't stand it.
2.
 - 0 I am not particularly discouraged about the future.
 - 1 I feel discouraged about the future.
 - 2 I feel I have nothing to look forward to.
 - 3 I feel the future is hopeless and that things cannot improve.
3.
 - 0 I do not feel like a failure.
 - 1 I feel I have failed more than the average person.
 - 2 As I look back on my life, all I can see is a lot of failures.

- 3 I feel I am a complete failure as a person.
- 4.
- 0 I get as much satisfaction out of things as I used to.
 - 1 I don't enjoy things the way I used to.
 - 2 I don't get real satisfaction out of anything anymore.
 - 3 I am dissatisfied or bored with everything.
- 5.
- 0 I don't feel particularly guilty
 - 1 I feel guilty a good part of the time.
 - 2 I feel quite guilty most of the time.
 - 3 I feel guilty all of the time.
- 6.
- 0 I don't feel I am being punished.
 - 1 I feel I may be punished.
 - 2 I expect to be punished.
 - 3 I feel I am being punished.
- 7.
- 0 I don't feel disappointed in myself.
 - 1 I am disappointed in myself.
 - 2 I am disgusted with myself.
 - 3 I hate myself.
- 8.
- 0 I don't feel I am any worse than anybody else.
 - 1 I am critical of myself for my weaknesses or mistakes.
 - 2 I blame myself all the time for my faults.
 - 3 I blame myself for everything bad that happens.
- 9.
- 0 I don't have any thoughts of killing myself.
 - 1 I have thoughts of killing myself, but I would not carry them out.
 - 2 I would like to kill myself.
 - 3 I would kill myself if I had the chance.
- 10.
- 0 I don't cry any more than usual.
 - 1 I cry more now than I used to.
 - 2 I cry all the time now.
 - 3 I used to be able to cry, but now I can't cry even though I want to.
- 11.
- 0 I am no more irritated by things than I ever was.
 - 1 I am slightly more irritated now than usual.
 - 2 I am quite annoyed or irritated a good deal of the time.
 - 3 I feel irritated all the time.
- 12.
- 0 I have not lost interest in other people.
 - 1 I am less interested in other people than I used to be.

- 2 I have lost most of my interest in other people.
3 I have lost all of my interest in other people.
13. 0 I make decisions about as well as I ever could.
1 I put off making decisions more than I used to.
2 I have greater difficulty in making decisions more than I used to.
3 I can't make decisions at all anymore.
14. 0 I don't feel that I look any worse than I used to.
1 I am worried that I am looking old or unattractive.
2 I feel there are permanent changes in my appearance that make me look unattractive.
3 I believe that I look ugly.
15. 0 I can work about as well as before.
1 It takes an extra effort to get started at doing something.
2 I have to push myself very hard to do anything.
3 I can't do any work at all.
16. 0 I can sleep as well as usual.
1 I don't sleep as well as I used to.
2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
3 I wake up several hours earlier than I used to and cannot get back to sleep.
17. 0 I don't get more tired than usual.
1 I get tired more easily than I used to.
2 I get tired from doing almost anything.
3 I am too tired to do anything.
18. 0 My appetite is no worse than usual.
1 My appetite is not as good as it used to be.
2 My appetite is much worse now.
3 I have no appetite at all anymore.
19. 0 I haven't lost much weight, if any, lately.
1 I have lost more than five pounds.
2 I have lost more than ten pounds.
3 I have lost more than fifteen pounds.
20. 0 I am no more worried about my health than usual.
1 I am worried about physical problems like aches, pains, upset stomach, or constipation.
2 I am very worried about physical problems and it's hard to think of much else.
3 I am so worried about my physical problems that I cannot think of anything else.
21. 0 I have not noticed any recent change in my interest in sex.

CARD SORTING TASK

The content and structure of the self-concept will be measured by the card sorting task used by Showers (1992; Showers & Kling, 1996). This card sorting task is based on the task originally developed by Zajonc (1960) and extended by Linville (1985, 1987). For this task, participants will be provided with a deck of 40 cards, each containing a potentially self-descriptive attribute. The deck will contain 20 positive (e.g., outgoing, successful, mature, hardworking) and 20 negative attributes (e.g., unloved, isolated, tense, irritable). Participants will be given the following initial instructions, “Your task is to think of the different aspects of yourself or your life and then sort the cards into groups where each group describes an aspect of yourself or your life.” The remainder of the instructions will be very similar to those reported by Showers and Kevlyn (1999). Participants will be able to form as many groups as needed, with as many or as few attributes as desired in each group. Attributes can be used in more than one group, and attributes that the respondent does not believe are self-descriptive do not have to be used. After completing the card sorting task, participants will indicate the positivity (“How positive is this aspect of yourself?”), negativity (“How negative is this aspect of yourself?”), and importance (i.e., “How important is this aspect of yourself for the way you think about yourself? In other words, how central is this aspect to your overall concept of yourself?”) of each self-aspect generated during the card sorting task using 7-point scales.

Card Sort Attributes

- | | |
|-----------------------|------------------------|
| 1. Successful | 21. Organized |
| 2. Disagreeing | 22. Insecure |
| 3. Giving | 23. Worthless |
| 4. Hopeless | 24. Inferior |
| 5. Capable | 25. Intelligent |
| 6. Confident | 26. Lovable |
| 7. Lazy | 27. Fun & Entertaining |
| 8. Self-centered | 28. Interested |
| 9. Unloved | 29. Outgoing |
| 10. Comfortable | 30. Energetic |
| 11. Independent | 31. Irritable |
| 12. Not the “real me” | 32. Like a failure |
| 13. Needed | 33. Hardworking |
| 14. Immature | 34. Isolated |
| 15. Communicative | 35. Happy |
| 16. Weary | 36. Indecisive |
| 17. Mature | 37. Friendly |
| 18. Uncomfortable | 38. Disorganized |
| 19. Sad & Blue | 39. Optimistic |
| 20. Incompetent | 40. Tense |

POSITIVE NEGATIVE AFFECT SCHEDULE

This scale consists of a number of words that describe different feelings and emotions.

Read each item and then mark the appropriate answer in the box next to the word.

Indicate to what extent you feel this way **RIGHT NOW**.

1	2	3	4	5
Slightly or Not At All	A little	Moderately	Quite a bit	Extremely
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STATE ANXIETY INVENTORY

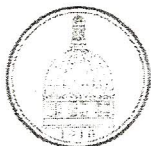
Instructions: A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number on your answer sheet to indicate how you feel RIGHT NOW, AT THIS MOMENT. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

- 1 = Not at all
2 = Somewhat
3 = Moderately so
4 = Very much so
-

1. I feel calm.
2. I feel secure.
3. I am tense.
4. I feel strained.
5. I feel at ease.
6. I feel upset.
7. I am presently worrying over possible misfortunes.
8. I feel satisfied.
9. I feel frightened.
10. I feel comfortable.
11. I feel self-confident.
12. I feel nervous.
13. I am jittery.
14. I feel indecisive.
15. I am relaxed.
16. I feel content.
17. I am worried.
18. I feel confused.
19. I feel steady.
20. I feel pleasant.

APPENDIX E

INSTITUTIONAL REVIEW BOARD APPROVAL



THE UNIVERSITY OF SOUTHERN MISSISSIPPI

Institutional Review Board

118 College Drive #5147
 Hattiesburg, MS 39406-0001
 Tel: 601.266.6820
 Fax: 601.266.5509
 www.usm.edu/irb

**HUMAN SUBJECTS PROTECTION REVIEW COMMITTEE
 NOTICE OF COMMITTEE ACTION**

The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months.
 Projects that exceed this period must submit an application for renewal or continuation.

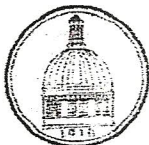
PROTOCOL NUMBER: 10072201
 PROJECT TITLE: **Personality F10**
 PROPOSED PROJECT DATES: 08/01/2010 to 08/01/2011
 PROJECT TYPE: **New Project**
 PRINCIPAL INVESTIGATORS: **Virgil Zeigler-Hill, Ph.D.**
 COLLEGE/DIVISION: **College of Education & Psychology**
 DEPARTMENT: **Psychology**
 FUNDING AGENCY: **N/A**
 HSPRC COMMITTEE ACTION: **Expedited Review Approval**
 PERIOD OF APPROVAL: 07/29/2010 to 07/28/2011

Lawrence A. Hosman

 Lawrence A. Hosman, Ph.D.
 HSPRC Chair

8-2-2010

 Date



THE UNIVERSITY OF SOUTHERN MISSISSIPPI

Institutional Review Board

118 College Drive #5147
 Hattiesburg, MS 39406-0001
 Tel: 601.266.6820
 Fax: 601.266.5509
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HUMAN SUBJECTS PROTECTION REVIEW COMMITTEE NOTICE OF COMMITTEE ACTION

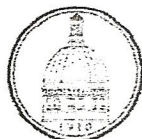
The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21 CFR 26.111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

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- The risks to subjects are reasonable in relation to the anticipated benefits.
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- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 10121302
 PROJECT TITLE: **Personality SP11**
 PROPOSED PROJECT DATES: 01/01/2011 to 01/01/2012
 PROJECT TYPE: **New Project**
 PRINCIPAL INVESTIGATORS: **Virgil Zeigler-Hill**
 COLLEGE/DIVISION: **College of Education & Psychology**
 DEPARTMENT: **Psychology**
 FUNDING AGENCY: **N/A**
 HSPRC COMMITTEE ACTION: **Expedited Review Approval**
 PERIOD OF APPROVAL: 01/03/2011 to 01/02/2012

Lawrence A. Hosman
 Lawrence A. Hosman, Ph.D.
 HSPRC Chair

1-5-2011
 Date



THE UNIVERSITY OF SOUTHERN MISSISSIPPI

Institutional Review Board

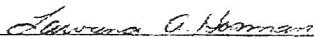
118 College Drive #5147
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 Fax: 601.266.5509
 www.usm.edu/irb

HUMAN SUBJECTS PROTECTION REVIEW COMMITTEE NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Human Subjects Protection Review Committee in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

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- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
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- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
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- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 10121301
 PROJECT TITLE: STSP11
 PROPOSED PROJECT DATES: 01/01/2011 to 01/01/2012
 PROJECT TYPE: New Project
 PRINCIPAL INVESTIGATORS: Virgil Zeigler-Hill, Ph.D.
 COLLEGE/DIVISION: College of Education & Psychology
 DEPARTMENT: Psychology
 FUNDING AGENCY: N/A
 HSPRC COMMITTEE ACTION: Expedited Review Approval
 PERIOD OF APPROVAL: 01/03/2011 to 01/02/2012



 Lawrence A. Hosman, Ph.D.
 HSPRC Chair

1-5-2011

 Date

REFERENCES

- Allport, G. (1954). *The nature of prejudice*. Oxford England: Addison-Wesley.
- Anderson, C., & Cromwell, R. (1977). 'Black is beautiful' and the color preferences of Afro-American youth. *Journal of Negro Education*, 46, 76-88.
- Aronson, J., & Steele, C. M. (2005). Stereotypes and the Fragility of Academic Competence, Motivation, and Self-Concept. In A. J. Elliot, C. S. Dweck (Eds.) , *Handbook of competence and motivation* (pp. 436-456). New York, NY: Guilford Publications.
- Aronson, J., Lustina, M., Good, C., Keough, K., Steele, C., & Brown, J. (1999). When White men can't do math: Necessary and sufficient factors in stereotype threat. *Journal of Experimental Social Psychology*, 35, 29-46.
- Averhart, C., & Bigler, R. (1997). Shades of meaning: Skin tone, racial attitudes, and constructive memory in African American children. *Journal of Experimental Child Psychology*, 67, 363-388.
- Baker, A. (2011). [Session instructions – high threat]. Unpublished laboratory instructions.
- Baker, A. (2011). [Session instructions – low threat]. Unpublished laboratory instructions.
- Baker, A., Zeigler-Hill, V., & Limke, A. (2010, January). *Does self-concept structure serve a protective function for Black individuals?* Poster presented at the meeting of the Society for Personality and Social Psychology, Las Vegas, NV.

- Beck, A. T., Steer, R. A., & Garbin, M. G. (1988). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review, 8*, 77-100.
- Beck, A.T., Rush, A.J., Shaw, B.F., & Emery, G. (1979). *Cognitive therapy of depression*. New York, NY: Guilford Press.
- Bell, E. L. (1990). The bicultural life experience of career-oriented black women. *Journal of Organizational Behavior, 11*, 459-477.
- Ben-Zeev, T., Fein, S., & Inzlicht, M. (2005). Arousal and stereotype threat. *Journal of Experimental Social Psychology, 41*, 174-181.
- Blackwell, L. E. (1981). *Mainstreaming outsiders: The production of Black professionals*. New York, NY: General Hall.
- Blascovich, J., & Tomaka, J. (1991). Measures of self-esteem. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 115-160). San Diego, CA: Academic Press.
- Bosson, J., Haymovitz, E., & Pinel, E. (2004). When saying and doing diverge: The effects of stereotype threat on self-reported versus non-verbal anxiety. *Journal of Experimental Social Psychology, 40*, 247-255.
- Boyd, D., & Bee, H. (2006). *Lifespan development* (4th ed.). Auckland, New Zealand: Pearson Education.
- Brown, R. P., & Day, E. (2006). The difference isn't black and white: Stereotype threat and the race gap on raven's advanced progressive matrices. *Journal of Applied Psychology, 91*, 979-985.

- Brown, R. P., & Pinel, E. C. (2003). Stigma on my mind: Individual differences in the experience of stereotype threat. *Journal of Experimental Social Psychology, 39*, 626-633.
- Buckler, K., Wilson, S., & Salinas, P. (2009). Public support for punishment and progressive criminal justice policy preferences: The role of symbolic racism and negative racial stereotype. *American Journal of Criminal Justice, 34*, 238-252.
- Campbell, J. D. (1990). Self-esteem and clarity of the self-concept. *Journal of Personality and Social Psychology, 59*, 538-549.
- Campbell, J., Trapnell, P., Heine, S., Katz, I., Lavalley, L., & Lehman, D. (1996). Self-concept clarity: Measurement, personality correlates, and cultural boundaries. *Journal of Personality and Social Psychology, 70*, 141-156.
- Cartwright, D. (1950). Emotional dimensions of group life. In M. L. Raymert (Ed.), *Feelings and emotions* (pp. 439-447). New York, NY: McGraw-Hill.
- Chasteen, A., Bhattacharyya, S., Horhota, M., Tam, R., & Hasher, L. (2005). How feelings of stereotype threat influence older adults' memory performance. *Experimental Aging Research, 31*, 235-260.
- Cheatham, H. (1990). Africentricity and career development of African Americans. *The Career Development Quarterly, 38*, 334-346.
- Chung, B., Ehrhart, M., Ehrhart, K., Hatrup, K., & Solamon, J. (2010). Stereotype threat, state anxiety, and specific self-efficacy as predictors of promotion exam performance. *Group and Organization Management, 35*, 77-107.

- Clark, K., & Clark, M. (1947). Racial identification and preference in Negro children. In T. M. Newcomb & E. L. Hartley (Eds.), *Readings in social psychology* (pp. 169-178). New York, NY: Holt.
- Clark, R., Anderson, N., Clark, V., & Williams, D. (1999). Racism as a stressor for African Americans: A biopsychosocial model. *American Psychologist, 54*, 805-816.
- Cokley, K. O. (2002). Ethnicity, gender and academic self-concept: A preliminary examination of academic disidentification and implications for psychologists. *Cultural Diversity and Ethnic Minority Psychology, 8*, 378-388.
- Cooley, C. H. (1902). *Human nature and the social order*. New York, NY: Scribner.
- Coopersmith, S. (1967). *The antecedents of self-esteem*. San Francisco, CA: Freeman.
- Correll, J., Park, B., Judd, C. M., & Wittenbrink, B. (2002). The police officer's dilemma: Using ethnicity to disambiguate potentially threatening individuals. *Journal of Personality and Social Psychology, 83*, 1314-1329.
- Cramer, H. (1974). *Mathematical methods of statistics*. Princeton, NJ: Princeton University Press. (Original work published 1945)
- Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review, 96*, 608-630.
- Croizet, J., Després, G., Gauzins, M., Huguet, P., Leyens, J., & Méot, A. (2004). Stereotype threat undermines intellectual performance by triggering a disruptive mental load. *Personality and Social Psychology Bulletin, 30*, 721-731.

- Crooks, R. C. (1970). The effects of an interracial preschool program upon racial preference, knowledge of racial differences, and racial identification. *Journal of Social Issues, 26*, 137-144.
- Cross, W. E., Parham, T. A., & Helms, J. E. (1991). The stages of Black identity development: Nigrescence models. *Black psychology* (3rd ed.; pp. 319-338). Berkeley, CA: Cobb & Henry Publishers.
- Cullen, M. J., Harison, C. M., & Sackett, P. R. (2004). Using SAT-grade and ability-job performance relationships to test predictions derived from stereotype threat theory. *Journal of Applied Psychology, 89*, 220-230.
- Davies, P., Spencer, S., & Steele, C. (2005). Clearing the air: Identity safety moderates the effects of stereotype threat on women's leadership aspirations. *Journal of Personality and Social Psychology, 88*, 276-287.
- Davis, C., Aronson, J., & Salinas, M. (2006). Shades of threat: Racial identity as a moderator of stereotype threat. *Journal of Black Psychology, 32*, 399-417.
- Demo, D. H. (1985). The measurement of self-esteem: Refining our methods. *Journal of Personality and Social Psychology, 48*, 1490-1502.
- Derks, B., Inzlicht, M., & Kang, S. (2008). The neuroscience of stigma and stereotype threat. *Group Processes and Intergroup Relations, 11*, 163-181.
- Devine, P., & Elliot, A. (1995). Are racial stereotypes really fading? The Princeton trilogy revisited. *Personality and Social Psychology Bulletin, 21*, 1139-1150.

- Diemer, M. (2007). Two worlds: African American men's negotiation of predominantly White educational and occupational worlds. *Journal of Multicultural Counseling and Development, 35*, 2-14.
- Dill, B. T. (1979). The dialectics of black womanhood. *Signs: Journal of Women in Culture and Society, 4*, 543-555.
- DuBois, W. E. B. (1903). *The souls of Black folk*. New York, NY: New American Library.
- Elizaga, R., & Markman, K. (2008). Peers and performance: How in-group and out-group comparisons moderate stereotype threat effects. *Current Psychology, 27*, 290-300.
- Everitt, B. S. (1977). *The analysis of contingency tables*. London: Chapman and Hall.
- Fanon, F. (1967). *Black Skin, White Masks* (C. L. Markmann, Trans.). New York, NY: Grove Press.
- Fordham, S. (1988). Racelessness as a factor in Black students' school success: Pragmatic strategy or pyrrhic victory? *Harvard Educational Review, 58*, 54-84.
- Franklin, A. (1999). Invisibility syndrome and racial identity development in psychotherapy and counseling African American men. *The Counseling Psychologist, 27*, 761-793.
- Franklin, A., Boyd-Franklin, N., & Kelly, S. (2006). Racism and invisibility: Race-related stress, emotional abuse and psychological trauma for people of color. *Racism and racial identity: Reflections on urban practice in mental health and social services* (pp. 9-30). Binghamton, NY: Haworth Press.

- Franklin-Jackson, D., & Carter, R. (2007). The relationships between race-related stress, racial identity, and mental health for Black Americans. *Journal of Black Psychology, 33*, 5-26.
- Gerth, H., & Mills, C. W. (1953). *Character and social structure: The psychology of social institutions*. New York, NY: Harcourt Brace.
- Goffman, I. (1963). *Stigma: Notes on the management of spoiled identity*. Englewood Cliffs, NJ: Prentice Hall.
- Goodwin, S., Williams, K., & Carter-Sowell, A. (2010). The psychological sting of stigma: The costs of attributing ostracism to racism. *Journal of Experimental Social Psychology, 46*, 612-618.
- Gray-Little, B., & Hafdahl, A. R. (2000). Factors influencing racial comparisons of self-esteem: A quantitative review. *Psychological Bulletin, 126*, 26-54.
- Gresky, D. M., Eyck, L. L. T., Lord, C. G., & McIntyre, R. B. (2005). Effects of salient multiple identities on women's performance under mathematical stereotypes. *Sex Roles, 53*, 703-716.
- Heatherton, T. F., & Polivy, J. (1991). Development and validation of a scale for measuring state self-esteem. *Journal of Personality and Social Psychology, 60*, 895-910.
- Heisler M., Rust G., Patillo R., Dubous A. M. (2004). Improving health, eliminating disparities: Finding solutions for better health care for all. *Ethnicity and Disease, 15*, 1-4.

- Herba, J., & Grant, G. (1970). Black is beautiful: A reexamination of racial preference and identification. *Journal of Personality and Social Psychology, 16*, 398-402.
- Hess, T. M., & Hinson, J. T. (2006). Age-related variation in the influences of aging stereotypes on memory in adulthood. *Psychology and Aging, 21*, 621-625.
- Hess, T. M., Emery, L., & Queen, T. L. (2009). Task demands moderate stereotype threat effects on memory performance. *The Journals of Gerontology: Series B: Psychological Sciences and Social Sciences, 64B*(4), 482-486.
- Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological*
- Ho, A., & Sidanius, J. (2010). Preserving positive identities: Public and private regard for one's ingroup and susceptibility to stereotype threat. *Group Processes and Intergroup Relations, 13*, 55-67.
- Hudley, C., & Graham, S. (2001). Stereotypes of achievement striving among early adolescents. *Social Psychology of Education, 5*, 201-224.
- Huguet, P., & Régner, I. (2009). Counter-stereotypic beliefs in math do not protect school girls from stereotype threat. *Journal of Experimental Social Psychology, 45*, 1024-1027.
- Jackson J. S. (1993). African American experiences through the adult years. In R. Kastenbaum (Ed.), *The encyclopedia of adult development* (pp. 18-26). Phoenix, AZ: Oryx Press.
- Jackson, J. E., Jr. (1998). Creating a consensus: Psychologists, the Supreme Court, and school desegregation, 1952-1955. *Journal of Social Issues, 54*, 143-177.
- Jensen, A. R. (1980). *Bias in mental testing*. New York, NY: Free Press.

- Joseph, P. E. (2009). The Black Power movement: A state of the field. *Journal of American History*, 96, 751-776.
- Kansal, T. (2005). Racial disparity in sentencing: A review of the literature. *The Sentencing Project*. Retrieved from http://www.sentencingproject.org/doc/publications/rd_sentencing_review.pdf
- Katz, I. (1964). Review of evidence relating to effects of desegregation on the intellectual performance of Negroes. *American Psychologist*, 19, 381-399.
- Keller, J. (2007). Stereotype threat in classroom settings: The interactive effect of domain identification, task difficulty and stereotype threat on female students' math performance. *British Journal of Educational Psychology*, 77, 323-338.
- Kellow, J., & Jones, B. (2008). The effects of stereotypes on the achievement gap: Reexamining the academic performance of African American high school students. *Journal of Black Psychology*, 34, 94-120.
- Kessler, R. C., Demier, O., Frank, R. G., Olfson, M., Pincus, H. A., Walters, E. E.,... Zaslavsky A. M. (2005). Prevalence and treatment of mental disorders, 1990 to 2003. *The New England Journal of Medicine*, 352, 2515-2523.
- Kiefer, A., & Sekaquaptewa, D. (2007). Implicit stereotypes and women's math performance: How implicit gender-math stereotypes influence women's susceptibility to stereotype threat. *Journal of Experimental Social Psychology*, 43, 825-832.
- Kirnan, J., Alfieri, J., Bragger, J., & Harris, R. (2009). An investigation of stereotype threat in employment tests. *Journal of Applied Social Psychology*, 39, 359-388.

- Krendl, A. C., Richeson, J.A., Kelley, W.M, & Heatherton, T. F. (2008). The negative consequences of threat: A functional magnetic resonance imaging investigation of the neural mechanisms underlying women's underperformance in math. *Psychological Science, 19*, 168-175.
- Landrine, H., & Klonoff, E. (1996). The schedule of racist events: A measure of racial discrimination and a study of its negative physical and mental health consequences. *Journal of Black Psychology, 22*, 144-168.
- Lawrence, J., Marks, B., & Jackson, J. (2010). Domain identification predicts black students' underperformance on moderately-difficult tests. *Motivation and Emotion, 34*, 105-109.
- Linder, D. (2000). Lynching statistics. *The Shipp Trial: An Account*. Retrieved from <http://www.law.umkc.edu/faculty/projects/ftrials/shipp/lynchingyear.html>
- Linville, P. (1985). Self-complexity and affective extremity: Don't put all of your eggs in one cognitive basket. *Social Cognition, 3*, 94-120.
- Linville, P. (1987). Self-complexity as a cognitive buffer against stress-related illness and depression. *Journal of Personality and Social Psychology, 52*, 663-676.
- Logel, C., Iserman, E. C., Davies, P.G., Quinn, D.M., & Spencer, S. J. (2009). The perils of double consciousness: The role of thought suppression in stereotype threat. *Journal of Experimental Social Psychology, 45*, 299-312.
- Mauer, M., & King, R. S. (2007). Uneven justice: State rates of incarceration by race and ethnicity. *The Sentencing Project*. Retrieved from

http://sentencingproject.org/doc/publications/rd_stateratesofincbyraceandethnicity.pdf

- Mayer, D. M., & Hanges, P. J. (2003). Understanding the stereotype threat effect with “culture-free” tests: an examination of its mediators and measurement. *Human Performance, 16*, 207-230.
- McCarthy, J. D., & Yancey, W. L. (1971). Uncle Tom and Mr. Charlie: Metaphysical pathos in the study of racism and personal disorganization. *American Journal of Sociology, 76*, 648-672.
- McKay, P. F., Doverspike, D., Bowen-Hilton, D., & Martin, Q. D. (2002). Stereotype threat effects on the Raven Advanced Progressive Matrices scores of African-Americans. *Journal of Applied Social Psychology, 32*, 767-787.
- McMahon, P. D., Showers, C. J., Rieder, S. L., Abramson, L. Y., & Hogan, M. E. (2003). Integrative thinking and flexibility in the organization of self-knowledge. *Cognitive Therapy and Research, 27*, 167-184.
- Morris, A., Rhoads, K., Stain, S., & Birkmeyer, J. (2010). Understanding racial disparities in cancer treatment and outcomes. *Journal of the American College of Surgeons, 211*, 105-113.
- Nguyen, H., & Ryan, A. (2008). Does stereotype threat affect test performance of minorities and women? A meta-analysis of experimental evidence. *Journal of Applied Psychology, 93*, 1314-1334.

- Nguyen, H.D., O'Neal, A., & Ryan A.M. (2003). Relating test-taking attitudes and skills and stereotype threat effects to the racial gap in cognitive ability test performance. *Human Performance, 16*, 261-293.
- Niemann, Y. F., Jennings, L., Rozelle, R. M., Baxter, J. C., & Sullivan, E. (1994). Use of free responses and cluster analysis to determine stereotypes of eight groups. *Personality and Social Psychology Bulletin, 20*, 379-390.
- Niemann, Y. F., O'Connor, E., & McClorie, R. (1998). Intergroup stereotypes of working class Blacks and Whites: Implications for stereotype threat. *Western Journal of Black Studies, 22*, 103-108.
- Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: Evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin, 128*, 3-72.
- Pelham, B. W. (1991). On the benefits of misery: Self-serving biases in the depressive self-concept. *Journal of Personality and Social Psychology, 61*, 670-681.
- Pelham, B. W., & Swann, W. B. (1989). From self-conceptions to self-worth: On the sources and structure of global self-esteem. *Journal of Personality and Social Psychology, 57*, 672-680.
- Perry, S. P., & Skitka, L. J. (2009). Making lemonade? Defensive coping style moderates the effect of stereotype threat on women's math test performance. *Journal of Research In Personality, 43*, 918-920.
- Phinney, J. S. (1996). Understanding ethnic diversity: The role of ethnic identity. *American Behavioral Scientist, 40*, 143-152.

- Phinney, J. S., & Ong, A. D. (2007). Conceptualization and measurement of ethnic identity: Current status and future directions. *Journal of Counseling Psychology, 54*, 271–281.
- Ployhart, R. E., Ziegert, J. C., & McFarland, L.A. (2003). Understanding racial differences on cognitive ability tests in selection contexts: an integration of stereotype threat and applicant reactions research. *Human Performance, 16*, 231-259.
- Porter, C. P. (1991). Social reasons for skin tone preferences of black school-age children. *American Journal of Orthopsychiatry, 61*, 149-154.
- Prelow, H. M., Bowman, M. A., & Weaver, S. R. (2007). Predictors of psychosocial well-being in urban African American and European American youth: The role of ecological factors. *Journal of Youth and Adolescence, 36*, 543-553.
- Pugh, L. A., & Bry, B. H. (2007). The protective effects of ethnic identity for alcohol and marijuana use among Black young adults. *Cultural Diversity and Ethnic Minority Psychology, 13*, 187-193.
- Quintana, S. M. (2007). Racial and ethnic identity: Developmental perspectives and research. *Journal of Counseling Psychology, 54*, 259-270.
- Ramseur, H. P. (1991). Psychologically healthy Black adults. In R. L. Jones (Ed.), *Black psychology* (3rd ed., pp. 353-378). Berkeley, CA: Cobb & Henry.
- Raven, J., Raven, J. C., & Court, J. H. (2003). *Manual for Raven's Progressive Matrices and Vocabulary Scales*. San Antonio, TX: Harcourt Assessment.
- Review, 94*, 319–340.

- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rowley, S. J., Sellers, R. M., Chavous, T. M., & Smith, M. A. (1998). The relationship between racial identity and self-esteem in African American college and high school students. *Journal of Personality and Social Psychology, 74*, 715-724.
- Rushton, J., & Jensen, A. (2005). Wanted: More race realism, less moralistic fallacy. *Psychology, Public Policy, and Law, 11*, 328-336.
- Rydell, R. J., & Boucher, K. L. (2010). Capitalizing on multiple social identities to prevent stereotype threat: The moderating role of self-esteem. *Personality and Social Psychology Bulletin, 36*, 239-250.
- Rydell, R. J., McConnell, A. R., & Beilock, S. L. (2009). Multiple social identities and stereotype threat: Imbalance, accessibility, and working memory. *Journal of Personality and Social Psychology, 96*, 949-966.
- Sackett, P. (2003). Stereotype threat in applied selection settings: A commentary. *Human Performance, 16*, 295-309.
- Sackett, P. R., Hardison, C. M., & Cullen, M. J. (2004a). On interpreting stereotype threat as accounting for African American-White differences on cognitive tests. *American Psychologist, 59*, 7-13.
- Sackett, P.R., Hardison, C. M. & Cullen, M. J. (2004b). On the value of correcting mischaracterizations of stereotype threat research. *American Psychologist, 59*, 48-49.

- Schmader, T., Johns, M., & Barquissau, M. (2004). The costs of accepting gender differences: The role of stereotype endorsement in women's experience in the math domain. *Sex Roles, 50*, 835-850.
- Schmader, T., Johns, M., & Forbes, C. (2008). An integrated process model of stereotype threat on performance. *Psychological Review, 115*, 336-356.
- Scott, D. M. (1997). *Contempt and pity: Social policy and the image of the damaged Black psyche 1880-1996*. Chapel Hill, NC: University of North Carolina Press.
- Segall, M. (1999). Why is there still racism if there is no such thing as 'race'?. *Merging past, present, and future in cross-cultural psychology: Selected papers from the Fourteenth International Congress of the International Association for Cross-Cultural Psychology* (pp. 14-26). Lisse, Netherlands: Swets & Zeitlinger Publishers. Retrieved from <http://www.ac.wvu.edu/~culture/segall.htm>.
- Seibt, B., & Förster, J. (2004). Stereotype threat and performance: How self-stereotypes influence processing by inducing regulatory foci. *Journal of Personality and Social Psychology, 87*, 38-56.
- Showers, C. J. (1992). Evaluatively integrative thinking about characteristics of the self. *Personality and Social Psychology Bulletin, 18*, 719-729.
- Showers, C. J. (2000). Self-organization in emotional contexts. *Feeling and thinking: The role of affect in social cognition* (pp. 283-307). New York, NY: Cambridge University Press.

- Showers, C. J., & Kevlyn, S. B. (1999). Organization of knowledge about a relationship partner: Implications for liking and loving. *Journal of Personality and Social Psychology, 76*, 958-971.
- Showers, C. J., & Kling, K. C. (1996). Organization of self-knowledge: Implications for recovery from sad mood. *Journal of Personality and Social Psychology, 70*, 578-590.
- Showers, C. J., & Zeigler-Hill, V. (2003). Organization of self-knowledge: Features, functions, and flexibility. *Handbook of self and identity* (pp. 47-67). New York, NY: Guilford Press.
- Showers, C. J., & Zeigler-Hill, V. (2004). Organization of partner knowledge: Implications for relationship outcomes and longitudinal change. *Personality and Social Psychology Bulletin, 30*, 1198-1210.
- Showers, C. J., Abramson, L. Y., & Hogan, M. E. (1998). The dynamic self: How the content and structure of the self-concept change with mood. *Journal of Personality and Social Psychology, 75*, 478-493.
- Showers, C. J., Zeigler-Hill, V., & Limke, A. (2006). Self-structure and childhood maltreatment: Successful compartmentalization and the struggle of integration. *Journal of Social and Clinical Psychology, 25*, 473-507.
- Simmons, R. G., & Rosenberg, M. (1971). Functions of children's perceptions of the stratification system. *American Sociological Review, 36*, 235-249.

- Spencer, S., Steele, C., & Quinn, D. (2002). Stereotype threat and women's math performance. *Readings in the psychology of gender: Exploring our differences and commonalities* (pp. 54-68). Needham Heights, MA: Allyn & Bacon.
- Spielberger, C. D., Gorsuch R. L., Lushene P. R., Vagg P. R., & Jacobs A. G. (1983). *Manual for the State-Trait Anxiety Inventory (Form Y)*. Palo Alto: Consulting Psychologists Press.
- Spielberger, C. D., Gorsuch, R.L., & Lushene. R.E. (1970). *Manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Steele, C. M. (1997). A threat in the air: How stereotypes shape intellectual identity and performance. *American Psychologist*, *52*, 613-629.
- Steele, C. M. (2003). Through the back door to theory. *Psychological Inquiry*, *14*, 314-317.
- Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology*, *69*, 797-811.
- Steele, C. M., & Davies, P. G. (2003). Stereotype threat and employment testing: A commentary. *Human Performance*, *16*(3), 311-326.
- Steele, C. M., Spencer, S.J., & Aronson, J. (2002). Contending with group image: The psychology of stereotype and social identity threat. *Advances in experimental social psychology* (Vol. 34; pp. 379-440). San Diego, CA: Academic Press.
- Steele, S. (1990). *The content of our character*. New York, NY: St. Martin's Press.

- Sue, D. W., Capodilupo, C. M., Torino, G. C., Bucceri, J. M., Holder, A. M. B., Nadal, K. L., & Esquilin, M. (2007). Racial microaggressions in everyday life: Implications for clinical practice. *American Psychologist, 62*, 271–286.
- Tadmor, C. T., Tetlock, P. E., & Peng, K. (2009). Acculturation strategies and integrative complexity: The cognitive implications of biculturalism. *Journal of Cross-Cultural Psychology, 40*, 105-139.
- Taylor, M. C., & Walsh, E. J. (1979). Explanations of Black self-esteem: Some empirical tests. *Social Psychology Quarterly, 42*, 242-253.
- Twenge, J. M., & Crocker, J. (2002). Race and self-esteem: Meta-analyses comparing Whites, Blacks, Hispanics, Asians, and American Indians and comment on Gray-Little and Hafdahl (2000). *Psychological Bulletin, 128*, 371-408.
- U.S. Census Bureau. (2008). The Black alone population in the United States: 2008. Retrieved from <http://www.census.gov/population/www/socdemo/race/pp1-ba08.html>
- U.S. Census Bureau. (2009). Facts for features: Black (African American) history month. Report CB10-FF.01. Retrieved from http://www.census.gov/newsroom/releases/archives/facts_for_features_special_editions/cb10-ff01.html
- Utsey, S. O., Bolden, M. A., & Brown, A. L. (2001). Visions of revolution from the spirit of Frantz Fanon: A psychology of liberation for counseling African Americans confronting societal racism and oppression. In J. G. Ponterotto, J. M. Casas, L.

- Suzuki, & C. M. Alexander (Eds.), *Handbook of Multicultural Counseling* (4th ed., pp.311-336). Thousand Oaks, CA: Sage.
- Utsey, S. O., Ponterotto, J. G., Reynolds, A. L., & Cancelli, A. A. (2000). Racial discrimination, coping, life satisfaction, and self-esteem among African Americans. *Journal of Counseling and Development, 78*, 72-80.
- Walton, G. M., & Cohen, G. L. (2003). Stereotype lift. *Journal of Experimental Social Psychology, 39*, 456-467.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 47*, 1063-1070.
- Williams, D. R., & Williams-Morris, R. (2000). Racism and mental health: The African American experience. *Ethnicity and Health, 5*, 243-268.
- Wonderlic, E. F. (1992). *Wonderlic Personnel Test and scholastic level exam*. Libertyville, IL: Wonderlic Personnel Test, Inc.
- Wout, D., Danso, H., Jackson, J., & Spencer, S. (2008). The many faces of stereotype threat: Group- and self-threat. *Journal of Experimental Social Psychology, 44*, 792-799.
- Wynn, L. T. (2009). Black Power Movement (1960s). In J. C. Smith & L. T. Wynn (Eds.), *Freedom Facts & Firsts: 400 Years of the African American Civil Rights Experience* (p. 30). Canton MI: Visible Ink Press. Retrieved from <http://site.ebrary.com.logon.lynx.lib.usm.edu/lib/southernmiss/docDetail.action?docID=10275424>

- Zajonc, R. B. (1960). The process of cognitive tuning in communication. *Journal of Abnormal and Social Psychology, 61*, 159-167.
- Zeigler-Hill, V. (2007). Contingent self-esteem and race: Do differences in the contingencies of self-esteem explain the Black self-esteem advantage? *Journal of Black Psychology, 33*, 51-74.
- Zeigler-Hill, V., & Jordan, C. H. (2010). Two faces of self-esteem: Implicit and explicit forms of self-esteem. In B. Gawronski & B. K. Payne (Eds.), *Handbook of implicit social cognition: Measurement, theory, and applications* (pp. 392-407). New York, NY: Guilford Press.
- Zeigler-Hill, V., & Showers, C. (2007). Self-structure and self-esteem stability: The hidden vulnerability of compartmentalization. *Personality and Social Psychology Bulletin, 33*, 143-159.
- Zeigler-Hill, V., & Wallace, M. T. (2011). Racial differences in narcissistic tendencies. *Journal of Research in Personality, 45*, 456-467.
- Zeigler-Hill, V., Wallace, M. T., & Myers, E. M. (2010). *Racial differences in self-esteem revisited: The role of socially desirable responding in the Black self-esteem advantage*. Manuscript submitted for publication.
- Zyphur, M. J. (2006). On the complexity of race. *American Psychologist, 61*, 179-180.