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The effect of ethnic-identity salience and negative performance feedback on African Americans' explicit and implicit self-evaluations

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THE EFFECT OF ETHNIC-IDENTITY SALIENCE AND NEGATIVE PERFORMANCE FEEDBACK ON AFRICAN AMERICANS' EXPLICIT AND IMPLICIT SELF-EVALUATIONS

A Thesis

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by

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ABSTRACT

The current research uses the Associative Propositional Evaluative model (APE; Gawronski & Bodenhausen, 2006) to examine the processes that underlie African Americans explicit versus implicit self-evaluations. Specifically, explicit self-evaluations are affected by propositional processes that consciously assess the validity of an automatic evaluation. Implicit self-evaluations are affected by associative processes that occur automatically when responding to contextual cues. The main prediction is that among African-American participants whose ethnic identity is made salient, those who receive negative feedback will show lower levels of implicit self-esteem because old evaluations stored in memory are activated, but such feedback will have no effect on explicit self-esteem because self-protective mechanisms are adopted, compared to those who receive no feedback. Participants received either negative feedback or no feedback and completed measures of implicit and explicit self-esteem. In partial support of this prediction, Studies 1 and 2 demonstrated that, when their ethnicity is made salient, strongly identified African Americans exhibited lower implicit self-esteem, but not lower explicit self-esteem, after receiving negative

performance feedback on an intelligence test. In partial support of the APE model, Study 2 further demonstrated that early experience with racism and psychological disengagement from the domain of intelligence differentially predicted implicit versus explicit self-esteem. Together, this research provides partial support for the distinct processes that affect explicit and implicit self-evaluations.

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CHAPTER ONE

INTRODUCTION

The self-esteem of African Americans appears to be unique. As a historically disadvantaged group that often perceives racism (Major & O'Brien, 2005), one might predict that African Americans internalize the stigma of their group and thus exhibit relatively low self-esteem (Clark & Clark, 1947). This hypothesis is in line with the looking-glass self approach (Cooley, 1956; Mead, 1934), which posits that an individual's self-concept is influenced by others' perceptions. Based on the looking-glass self approach, since stigmatized individuals are often viewed negatively, then these individuals should adopt such attitudes into their self-concept. The theory of self-fulfilling prophecy also supports the notion that stigmatized individuals should suffer from a relatively poor self-image (Merton, 1948). This viewpoint suggests that if the negative stereotypes of one's ingroup are applied to a group member, then such a person might behave in ways to confirm the stereotype. As a result, the outgroup target believes he or she is representative of the negative stereotype, which might result in a relatively poor self-image such as low self-esteem.

In spite of these theories, evidence demonstrates that African Americans do not show a decrease in self-esteem when faced with situations that threaten their self-concept (Crocker & Major, 1989). Rather, their self-esteem is maintained (no change) or, at times, heightened because they use self-protective mechanisms that allow them to either attribute threatening feedback to discrimination or disengage from a domain that is group "irrelevant" such as taking an intelligence-related test (Crocker & Major, 1989; Major, Spencer, Schmader, Wolfe, & Crocker, 1998; Crocker, Voelkl, Testa, & Major, 1991).

Crocker and Major's Theory of Self Esteem

Research by Crocker, Major, and their colleagues has demonstrated the conditions under which the explicit self-esteem of stigmatized versus non-stigmatized groups is or is not affected (Crocker & Major, 1989; Crocker & Major, 2003; Major & O'Brien, 2005). Crocker and Major's (1989) main thesis is that when African Americans experience a threat to the self, they do not show a decrease in explicit self-esteem, but maintain it, because they adopt self-protective mechanisms (also see Ashburn-Nardo, 2010). The self-protective mechanisms include attributing a self-threat to discrimination,

making in-group comparisons, and disengaging from a domain that African Americans are stereotyped to perform poorly on (Crocker & Major, 1989). Interestingly, since these protective mechanisms are unique to African Americans, other stigmatized groups do not use such mechanisms and often show a decrease in explicit self-esteem following a threat to the self (Crocker & Major, 2003). In support of this, Twenge and Crocker (2002) recently conducted a meta-analysis looking at ethnic-racial group differences in self-esteem. The results showed that African Americans had higher self-esteem than Whites, Hispanics, and Asians, in spite of the fact that African Americans have suffered disproportionately from a long history of racism in the United States (Twenge & Crocker, 2002; Takaki, 2008).

Twenge and Crocker (2002) suggest a cultural psychological explanation for why African Americans, as a group, have relatively high self-esteem. They posit that individualism, which heavily emphasizes people as independent and focuses on personal growth and uniqueness, is associated with high self-esteem within a culture as well as between cultures. Since African Americans are higher on individualism than Whites and Latinos (no difference between these two latter groups), followed by Asian Americans (Oyserman, Coon, & Kemmelmeier, 2002),

then they are able to detach their self-concept from a particular group in which they belong. This suggests that African Americans can protect their collective identity when faced with a threat that is linked to their ethnicity by highlighting their personal identity, resulting in higher self-esteem following a threat. In contrast, high collectivist individuals may be more likely to see themselves in terms of the collective identity and decrease their personal identity; they may exhibit low self-esteem following a threat to identity with their social group.

One factor that remains unexplored is the conditions under which African Americans do not use self-protective mechanisms, and thus show lower self-esteem. To this end, the current research distinguishes explicit self-esteem from implicit self-esteem. Crocker and Major's, (2003) studies measure explicit self-esteem, which is a self-evaluation that is conscious to an individual and thus it is captured on self-report measures. In contrast, implicit self-esteem is automatic or unconscious, formed at an early age and through repeated experiences, and thus it is captured on indirect measures such as response latency tasks. Implicit self-esteem is important to examine because it predicts the effect that success or

failure feedback has on an individual's mood and self-evaluation (Greenwald & Farnham, 2000), somatic symptoms such as breathing difficulties, disease, headaches, aches and pains, and indigestion (Robinson, Mitchell, Kirkeby, & Meier, 2006), future depressive symptamotology (Franck, Raedt, & Houwer, 2007), and spontaneous and/or affectively driven reactions such as nonverbal anxiety behaviors and negative mood (Bosson, Swann, & Pennebaker, 2000).

The associative-propositional evaluative model (APE; Gawronski & Bodenhausen, 2006) may help explain the conditions under which African Americans will use (or not) mechanisms that protect their explicit versus implicit self-esteem. The APE model suggests that there are dual processes that underlie self-esteem: explicit self-esteem is influenced by propositional processes and implicit self-esteem is influenced by associative processes. Before we describe the self-esteem hypotheses that follow from the APE model, we first review this model's general assumptions and hypotheses.

The Associative-Propositional Evaluation Model

The APE model starts with the assumption that individuals assess the "truth value" of all self- and

others-based evaluations (Gawronski & Bodenhausen, 2006). When doing so, propositional processes affect explicit evaluations whereas associative processes affect implicit evaluations (Gawronski & Bodenhausen, 2006). During an associative process, an input triggers the pattern of association (which is a preexisting structure of associations) that is stored in memory leading to an automatic evaluation. Such automatic evaluations can be activated regardless of whether the individual views the evaluation as true. When the pattern of association in memory is changed by certain information, it can change implicit evaluations. For example, Dijksterhuis (2004) found that compared with being primed with self-related neutral words, participants who were primed with self-related positive words showed an increase in implicit self-esteem. Presumably, when information does not activate old associations stored in memory, implicit evaluations should remain unaltered.

During a propositional process, people can consciously search for relevant information to assess the accuracy of an automatic evaluation. Alternatively, they can use propositions to defy or change the evaluation. If relevant information does not yield an accurate evaluation or propositions are considered that disconfirm the

evaluation, the initial and automatically activated associative evaluations are changed and are exhibited in people's explicit evaluations. For example, research has shown that a recent negative encounter with a member of a social group results in a general negative evaluation of that group and the reverse is true if having a positive encounter with a member from a social group (Gawronski, Bodenhausen, & Banse, 2005; Henderson-King & Nisbett, 1996). Furthermore, propositions can also confirm the initial evaluation, leading to no change in explicit evaluations.

The Associative-Propositional Evaluation Model and the Implicit versus Explicit Self-Esteem of African-Americans

The relationship between implicit and explicit self-esteem can occur such that implicit self-esteem is influenced by contextual factors, while explicit self-esteem remains unaltered. This occurs when there is a change in patterns of associations in memory, but considered propositions lead to a rejection of an associative evaluation. In line with the APE model, the implicit self-esteem of African-Americans should be influenced or altered when preexisting patterns of associations are temporarily changed because some external

stimuli activated old evaluations stored in memory. These old evaluations are formed from attitudes that are learned by interacting with others throughout one's development of the self and identity (Cooley, 1956; Mead, 1934; Rudman, 2004; Clark & Clark, 1939). Once these old evaluations are learned, they are activated by contextual factors regardless of whether or not the perceiver views the evaluation as true. On the other hand, the explicit self-esteem of African-Americans should be influenced when contextual or external stimuli activate associations that lead to a certain evaluation of an object. Specifically, propositional processes are activated when one assesses the validity of that evaluation. If that evaluation is not perceived as true to the individual, cognitive elaboration may be used to access explicit attitudes from memory (cf. Wilson, Lindsey, & Schooler, 2000).

We suggest that negative feedback about an African-American's intellectual performance when linked to their ethnic identity is likely to impact their implicit self-esteem by activating old evaluations stored in memory. African-Americans are stereotyped to be unintelligent because their group has a strong history of being perceived as intellectually inferior (Devine, 1989; Takaki, 2008). Such perceptions of their group are learned

at an early age because of media portrayals and their experiences with individual and institutional forms of discrimination (McKown & Weinstein, 2003; Phinney & Chavira, 1995; Phinney & Cobb, 1996; Miller & MacIntosh, 1999; Sanders, 1997). Such evaluations learned early in their development should be activated by contextual factors that remind them of their group's stereotyped intellectual abilities, thus activating implicit self-evaluations of unintelligent (or less intelligent) and low esteem.

However, in line with the APE model, African Americans' explicit self-esteem can remain relatively unaltered. During the propositional process, if propositions are considered to resolve an inaccurate evaluation, associative evaluations may not be taken as valid evaluations. For African Americans, using protective mechanisms such as disengaging from a domain irrelevant to the ethnic group (i.e., intelligence test performance) are external inputs that serve as propositions in assessing the validity of an associative evaluation. Such a protective mechanism should reduce their trust in negative intelligence-related feedback, which leads to a rejection of the activated associative evaluations about the self as a valid basis for an evaluative judgment. Although changes

in the patterns of associations may occur because of the activated initial associative evaluation learned early in life (and thus leading to relatively low implicit self-esteem), those changes may not be reflected in African Americans' explicit self-esteem because of changes to the initial associative evaluation. In line with this rationale and countless studies by Crocker, Major, and their colleagues (Crocker & Major, 1989; Crocker & Major, 2003; Major & O'Brien, 2005; Crocker et al., 1991), explicit self-esteem remains unaffected regardless of the present contextual cues.

Overview of Current Research

In summary, past research demonstrates that African Americans use protective mechanisms when evaluating the self when they face a threat to their self-image -- here, their explicit self-esteem remains unaffected (Crocker et al., 1991). The APE model suggests that this process occurs because African Americans use protective mechanisms, a proposition used to assess the validity of the associative evaluation. Because such a propositional process results in an "invalid" associative evaluation, there is no change in explicit self-esteem. By comparison, the APE model suggests that implicit self-esteem should be

more sensitive to changes as a function of contextual cues. African Americans who are presented with negative feedback about their performance should have increased accessibility to the old evaluations about their ethnic group being stereotyped as unintelligent whether or not they consider the stereotype to be true. Such evaluations can harm the overall self-image of African Americans, and thus lead to relatively low implicit self-esteem. The APE model elucidates how contextual cues can result in no change in explicit self-esteem due to the use of protective mechanisms, but they may result in changes in implicit self-esteem due to the activation of old evaluations.

The purpose of the current research is to test the APE model as a framework for demonstrating the conditions under which the implicit and explicit self-esteem of African Americans are affected. Leary, Terry, Allen, and Tate (2009) demonstrate that negative feedback about an intelligence test is the most common method used to successfully induce a threat to one's self and identity. For African-Americans, threatening feedback about an intellectual task in the context of their ethnic identity should activate associative and propositional processes. Therefore, we tested our main hypothesis in an

experimental condition in which African Americans receive (bogus) negative intelligence-related feedback after their ethnic identity is made salient. Then, we measure implicit and explicit self-esteem (Study 1 and Study 2), self-stereotyping (Study 2), and early experiences with racism and disengagement from intelligence (Study 2).

CHAPTER TWO

STUDY ONE

We predicted that when identity is made salient, negative intelligence-related feedback will not affect African Americans' explicit self-esteem compared to a no-feedback condition (Prediction 1a). Evidence in support of this prediction would replicate the work of Crocker et al. (1991) that demonstrates that African Americans maintain their explicit self-esteem following a threat to the self because they adopt protective mechanisms. By comparison, we predict that when ethnic identity is made salient negative intelligence-related feedback will lower African Americans' implicit self-esteem compared to a no-feedback condition (Prediction 1b). Presumably this is the case because the old evaluations that are stored in memory will be activated.

Method

Participants and Design

Sixty-eight self-identified African-American students (91% women; M_{age} = 26.25, age range: 19-55 years) from California State University, San Bernardino, participated in this study for course extra credit. Twelve participants were omitted from the analysis: three guessed the

hypothesis, eight failed to follow procedural or measurement instructions, and one was an outlier on multiple measures. The final sample size was 56 participants. The experiment adopted a 2 (Ethnic identity salience: yes or no) X 2 (Performance feedback: negative or none) between-participants design.

Materials

Standardized Intelligence Test. The intelligence test, identical to Laws (2009) consisted of fifteen quantitative and reasoning related items typical in a standardized test (see Appendix A). The test was intended to be ambiguous enough for participants to believe either the positive or negative feedback. To develop an ambiguous test, we administered the test across two phases as part of another project in our laboratory. In Phase 1 (N = 147), we administered 34 items (from Galinksy, Wang, & Ku, 2008; Hayes, Schimel, Faucher, & Williams, 2008), then scored the level of difficulty of each item using the difficulty feature in the Test Analysis Program (http://oak.cats.ohiou.edu/~brooksg/software.htm). The program uses the proportion correct as an index of difficulty. The final 15 items were selected evenly from among the easy items (i.e., items that at least 80% of the participants got correct), the mid-difficult items (i.e.,

items that 50-80% of the participants got correct), and the very difficult items (i.e., items that less than 50% of the participants got correct). In Phase 2 (N = 22), the final 15 items were administered to test the credibility of the false feedback on the intelligence test. After completing the test, participants received either positive feedback suggesting that they did very well on the test (i.e., 93rd percentile) or negative feedback conditions suggesting that they did not do well on the test (i.e., 47th percentile; more details about this feedback procedure are presented below), then they completed several Likert-type items measuring their feelings, agreement, accuracy, and certainty regarding their performance on the test. The specific items were a) "Please indicate how you felt after receiving your score" on a scale from 1 (*negative*) to 7 (*positive*), b) "Please indicate your agreement with the feedback on this particular test." on a scale ranging from 1 (*agree very much*) to 7 (*disagree very much*), and c) "Please indicate the extent to which you believe that the feedback was accurate of your performance on the test." on a scale ranging from 1 (*extremely inaccurate*) to 7 (*extremely accurate*).

Participants in the positive feedback condition indicated they felt relatively positive after receiving their score ($M_{positive}$ = 5.09) than those individuals in the negative feedback condition ($M_{negative}$ = 3.55), $F(1,20) = 6.31$, $p = .02$. However, participants did not vary across feedback conditions in the extent to which they agreed with the performance feedback ($M_{negative}$ = 2.91 vs. $M_{positive}$ = 2.45) and the extent to which they believed the feedback was accurate of their performance feedback ($M_{negative}$ = 3.10 vs. $M_{positive}$ = 3.00), $Fs > 1.44$, $ps > .23$.

Independent Variables

Ethnic Identity Salience. After completing the consent form, participants randomly assigned to the ethnic identity salience condition were asked to complete a brief demographic questionnaire in which they identified their ethnicity and age. Then, as part of the introduction to the intelligence test, these participants read, "This test has been administered to White college students and has been standardized for that group only. Your data will help us determine whether or not this test can be standardized for African Americans." Participants in the control condition did not complete this identity salience procedure.

Test Performance Feedback. All participants completed the standardized intelligence. Participants were told that the purpose of the study was to "complete a new computerized form of intelligence test." After completing the intelligence test, participants randomly assigned to the negative performance feedback condition were prompted to select "continue" to calculate their score. Then, they read:

"Computer is calculating your score...Please wait"

After ten seconds, a new screen appeared and read:

"Just a few more seconds..."

After five seconds, a new screen appeared and read:

"We have calculated your score. Compared to other students who have completed this test, you scored in the "47th percentile."

Participants in the no-feedback control condition did not complete this feedback procedure. Prior to completing the test, control participants read, "In this study, we are interested in gathering data to enter in a bank for analyses later. Therefore, you will not receive feedback after the test because we are interested in how people perform in general as opposed to your individual performance." We used this cover story because we wanted participants to complete the same test as the participants

in the false performance feedback condition, but we did not want their test performance to have any relevance to their self-image.

Dependent Variables

Implicit Self-Esteem. The protocol for the following measure is identical to that used in the thesis of Laws (2009). An Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998) was administered to measure implicit self-esteem (Self-Esteem IAT). In general, an IAT is a computerized task that measures the relative strength with which two target groups (e.g., the self vs. others) are associated with two opposing evaluations (e.g., good words vs. bad words) using response latency to operationalize attitude strength. In the Self-Esteem IAT, participants saw 4 types of stimuli presented one at a time on a computer screen. Two types of stimuli consisted of first-person pronouns (e.g., "me") and third-person pronouns (e.g., "they"). The other two types of stimuli consisted of words related to "good" (e.g., "joy", "paradise"), and words related to "bad" (e.g., "filth", "vomit"; see Appendix B for all IAT stimuli). In an IAT, participants' task is to categorize the 4 types of stimuli using 2 designated response keys on the keyboard. In the case of the Self-Esteem IAT, for one-half of the task,

participants were instructed to categorize first person pronouns and words associated with good using the same key ("me+good") and simultaneously to categorize third person pronouns and words associated with bad using the other key ("they+bad"). For the other one-half of the task, the key assignment was reversed (e.g., "me+bad," "they+good"). The order of the two tasks was counterbalanced between participants.

The underlying rationale of the IAT is that when highly associated words share the same response key, participants typically classify them quickly and easily; however, when weakly associated words share the same response key, participants tend to classify them more slowly and with greater difficulty. In the Self-Esteem IAT, we expected that participants would perform the classification task relatively fast when first-person-related and good-related words shared the same response key while third-person-related and bad-related words shared the other response key. (The logic of this computerized task is easier to understand if readers take an IAT. Several IATs assessing implicit attitudes toward various groups can be self-administered anonymously at https://implicit.harvard.edu/implicit/).

A plethora of research has used the IAT to reliably and validly measure people's implicit attitudes toward the self (Greenwald & Farnham, 2000; Greenwald & Banaji, 1995; Greenwald, Banaji, Rudman, Farnham, Nosek, & Mellot, 2002; Jordan, Spencer, Zanna, Hoshino-Browne, & Correll, 2003; Jordan, Spencer, & Zanna, 2003; Briñol, Petty, & Wheeler, 2006). In one such study using the Self-Esteem IAT, Farnham, Greenwald, and Banaji (1999) found that people made faster associations between *me* words and *pleasant* words rather than when *me* words were paired with *unpleasant* words. Furthermore, past studies have found that high implicit self-esteem, as measured with the IAT, is associated with greater implicit ingroup bias (Farnham et al., 1999; Jordan, Spencer, & Zanna, 2003). Recently, Greenwald, Poehlman, Uhlmann, and Banaji (2009) conducted a meta analysis using 184 studies and found that the beliefs and attitudes measured with an IAT predict theoretically important behavioral and physiological outcomes (Mean r = .27).

Explicit Self-Esteem. The Heatherton and Polivy (1991) State Self-Esteem Scale which Crocker used to measure state self-esteem (see Appendix C) was used to assess participants' explicit self-esteem. This measure contains 20 items that are divided into three subscales of

self-esteem (e.g., performance, appearance, and social) and includes items such as, "I am worried about my performance" and "I feel like I'm not doing well." Participants indicated the degree to which they agreed or disagreed with the statement at the current moment using a scale ranging from 1 (not at all) to 5 (extremely). Higher mean scores indicate higher explicit self-esteem.

Procedure

A female researcher informed participants that they would participate in two separate and unrelated studies, one on cognition, and another on personality. To enhance the "two separate studies" cover story, participants reviewed and signed two different consent forms. In the "first study" participants completed the computerized intelligence test, and in the "second study" participants completed the implicit and explicit self-esteem measures which were counterbalanced. Finally, participants completed an extensive demographics questionnaire (see Appendix D), were probed for suspicion of the purpose of the study (see Appendix E), and thoroughly debriefed (see Appendix F).

Results

Explicit and Implicit Self-esteem Descriptives

Scores on the measures of self-esteem indicated that participants had relatively high explicit self-esteem (M = 3.94; SD = .57). The scores on this measure were normally distributed ($zskew$ = -.50). Using a well-established scoring algorithm by Greenwald, Nosek, and Banaji (2003), a Self-Esteem IAT score was calculated for each participant using a modified effect size such that a large positive IAT effect size (abbreviated as SE IAT D) indicates relatively high implicit self-esteem, or stronger associations between the self and positive-related words than associations between the self and negative-related words. Participants had relatively high implicit self-esteem (M = .57; SD = .38). The scores on this measure were normally distributed ($zskew$ = -.56). The scores on the measures of implicit and explicit self-esteem were not significantly correlated r = .16, p = .24.

The Effects of Negative Feedback and Ethnic Identity Salience on Implicit and Explicit Self-esteem

An ANOVA in which ethnic identity salience and false feedback were the independent variables and implicit self-esteem was the dependent variable, revealed no

significant main effects of ethnic identity salience or feedback. However, as predicted, the Ethnic Salience X False Feedback interaction was significant, F (1, 52) = 4.69, $p < .05$. As shown in Figure 1, among participants whose ethnic identity was made salient, those who received negative feedback showed lower levels of implicit self-esteem (M = .40) than those who did not receive feedback (M = .66), F(1, 35) = 4.07, $p < .05$. However, among participants whose ethnicity was not made salient, implicit self-esteem was not affect by feedback, F (1, 52) = 1.02, *ns*. A similar ANOVA to the one above was conducted, but explicit self-esteem was the dependent variable. The results revealed no significant main effect and, most importantly, no significant interaction effect on explicit self-esteem, F (1, 52) = 2.06, *ns*.

Additional Analyses: Moderating Effect of Ethnic Identification

Research suggests that racial centrality (defined by how strongly individuals identify with their social group) moderates the effect of specific contexts (i.e., feedback) on stigma-related beliefs and behavior (Rowler, Sellers, Chavous, & Smith, 1998). Therefore, it is important to test if identification with a social group moderates the effect of contextual cues on the self-concept. In line

with this rationale, Major, Quinton, and Schmader (2002) found that high gender-identified women made more attributions to discrimination than low identified women when ambiguous prejudice cues (e.g., unfair grading between guys and girls) were present in the situation, but this effect did not occur when prejudice cues were absent or obvious. In the present research, it is plausible that highly identified African Americans would show lower levels of implicit self-esteem when they receive negative performance feedback compared to no feedback. This might be the case because highly identified African Americans may have easier access to their memories of early experiences with racism, which we predict is associated with lower implicit self-esteem. Highly identified African Americans are more likely to be aware of racism and discrimination against their group, and thus have a better recollection of those memories.

As part of a background questionnaire, participants completed a single item that measured African-Americans' subjective ethnic-racial identity: "Being an African-American is an important part of who I am." The item was adopted from Sellers et al.'s (1997) MMRI-Centrality scale, which captures the extent to which race is significant to an African-American's perception of

self; also, centrality of one's identity is considered to be chronically salient and relatively stable regardless of context (also see Sellers et al., 1998, Leach et al., 2008). Participants were asked to indicate their agreement with the statement on a nine-point scale ranging from "Not at all" (1) to "Very much" (9). The midpoint was labeled "Somewhat" (5). The distribution of the scores was negatively skewed. Furthermore, since there were not enough low identifiers (n = 8) to fill the different feedback conditions, the analyses consist of high identifiers only. A high identification group consisted of participants with scores equal to 8.0 (n = 6) or 9.0 (n = 39).

Post hoc tests revealed a significant effect of the interaction between feedback and ethnic identity salience among participants who strongly identified as African American F (1, 41 = 11.64, p = .001. The implicit self-esteem of participants whose ethnic identity was made salient, varied as a function of experimental condition F (1, 24) = 7.29, p = .01, Cohen's d = 1.06 . In line with our prediction, participants who received negative feedback (M = .36, SD = .40) showed lower implicit self-esteem compared to participants who received no feedback (M = .77, SD = .37). Participants whose ethnic

identity was not made salient showed no differences on implicit self-esteem as a function of feedback and identity salience F (1, 21) = 2.95, p > .05. There were no significant main effects or interactions on explicit self-esteem as a result of strongly identifying as African American.

Discussion

Results revealed that African American participants exhibited relatively low implicit self-esteem when they received negative feedback about their performance linked to their ethnic identity. Furthermore, replicating Crocker and Major's (1989) research, African American participants' explicit self-esteem was unaffected by identity salience and false feedback, presumably because our participants used protective mechanisms to shield their self-image from a threat. We interpret these divergent effects on implicit versus explicit self-esteem in light of the APE model (Gawronski & Bodenhausen, 2006), which posits that explicit self-esteem should remain unaffected by threats to the self because of added propositional processes (i.e., protective mechanisms), but implicit self-esteem can be affected due to the activation of old evaluations stored in memory. Such old negative

evaluations are presumably formed from early experiences and can be activated by contextual cues (Rudman, 2004).

Additional analyses revealed that the effect of feedback on low implicit self-esteem was significant among strongly identified participants. African Americans who highly identify with a stigmatized group and who have their ethnic identity made salient may internalize the stigma associated with the group and this process is revealed implicitly when individuals receive a threat and that threat is also related to a negative stereotype about their stigmatized group (i.e., negative performance feedback). African Americans who strongly identify may be particularly sensitive to contextual cues that trigger old, negative evaluations stored in memory and hence lead to low implicit self-esteem, but leave explicit self-esteem unaffected.

CHAPTER THREE

STUDY TWO

The first main goal of Study 2 is to provide additional evidence for the propositional processes underlying explicit self-esteem and the associative processes underlying implicit self-esteem. If self-protective mechanisms were adopted as added propositions in the propositional process that lead to no change in explicit self-esteem, then participants should exhibit evidence of using such mechanisms when they receive negative performance feedback that is linked to their ethnicity (relative to a control condition). Furthermore, if these same contextual cues trigger old evaluations that are stored in memory and thus lowers implicit self-esteem, then participants should show evidence of enhanced early experiences with racism. To test these hypotheses, Study 2 administered measures of intelligence-domain disengagement as a protective mechanism and early experiences of racism.

The second main goal of the Study 2 was to test the effects of negative performance feedback on a different self-evaluation variable: self-stereotyping. According to self-categorization theory (Hogg & Turner, 1985; Turner,

1999), when an individual's social identity is made salient, he or she should apply the stereotypes of that group to their self-concept, or self-stereotype. Since African Americans are a stigmatized group that is associated with negative stereotypes that are pervasive, then their self-concepts should be negatively affected such that they should associate such negative stereotypes with their self-concept. We predicted that the effects on implicit and explicit self-stereotyping will parallel those of the self-esteem results: negative performance feedback linked to their ethnic identity should result in no change to explicit negative self-stereotyping, but lead to relatively strong implicit negative self-stereotyping.

To address the above two main goals of the Study 2, we made ethnic identity salient for all participants, then administered the same "intelligence test" and feedback procedure from the Study 1. We eliminated the no identity salient condition from Study 1 because, per our prediction, there was effect of feedback on self-evaluations in that condition. Following this procedure, participants completed the measures of self-esteem and self-stereotyping, followed by the measures of protective mechanisms and early experiences with racism.

Method

Participants and Design

Forty-three self-identified African-American students (83.7% women; M_{age} = 24.60, age range: 18-40 years) from California State University, San Bernardino, participated in this study for course extra credit. Participants were randomly assigned to one of two performance feedback conditions: negative or no feedback.

Independent Variable

Negative Performance Feedback. The same procedure from Study 1 will be used in this study.

Dependent Variables

Implicit and Explicit Self-Esteem. The measures of implicit and explicit self-esteem are identical to those used in Study 1.

Implicit Self-Stereotyping. An IAT was used to assess the strength of associating the self with African American stereotypes (Self-Stereotyping IAT; see Attachment G). The overall IAT procedure is similar to the Self-Esteem IAT used in the Study 1. However, of the 4 types of stimuli presented (two types consisting of first-person and third-person pronouns from the Self-Esteem IAT), two types of stimuli consisted of words related to the African American negative stereotype that they are unintelligent

(e.g., "unintelligent", "naive") and stereotype-irrelevant negative words related to the body (e.g., "sick", "diseased"). The negative stereotype stimuli were pretested for negativity and category label (e.g., "mind" or "body").

Explicit Self-Stereotyping. The explicit measure was a self-report questionnaire that used common negative stereotypes associated with African Americans (Devine, 1989; see Attachment G). The questionnaire asked participants to rate the extent to which they believed that each of the attributes described a quality they possessed. Participants responded on a 6-point scale ranging from (1) *not at all characteristic of me* to (6) *extremely characteristic of me*.

Self-Protective Mechanisms. First, the Disengagement of Self-Esteem From Feedback on Intelligence Tests subscale of the Intellectual Orientation Inventory (Major, 1995) was administered to assess the degree to which participants disengage their self-esteem from performance feedback (see Attachment H). The subscale asked participants to rate the extent to which they agree or disagree on a 7-point scale on the following three items: (1) "No intelligence test will ever change my opinion of how intelligent I am," (2) "How I do intellectually has

little relation to who I really am," and (3) "I really don't care what tests say about my intelligence." Higher numbers indicate greater disengagement. We used an additional item to assess the importance of intelligence to the individual: "Doing well on intellectual tasks is very important to me" (see Attachment H; Major & Schmader, 1998).

Second, we used 2 items similar to the Major, Spencer, Schmader, Wolfe, and Crocker (1998) study to assess whether students thought the intelligence test was biased against their race: (1) "I have an unfair advantage on the intelligence test I took because of my racial background" and (2) "I think the intelligence test I took is biased against racial minorities." All ratings were made on a 7-point scale ranging from (1 = strongly disagree, 7 = strongly agree). Higher numbers indicate greater disengagement.

Early Experiences of Perceived Racism. A modified version of the Everyday Discrimination Scale (EDS; Forman, Williams, & Jackson, 1997; Clark, Coleman, & Novak, 2004) was used to assess participants' early experiences with racism. The original version has 9 items that assess how often particular events occurred to a respondent as a function of their race. The EDS has acceptable predictive

validity. Several studies using the EDS have found that it predicts depressive symptoms (Siefert, Finlayson, Williams, Delva, and Ismail, 2007; Kessler, Mickelson, & Williams 1999), and negative affect, social conflict, and global reports of perceived stress (Taylor, Kamarck, & Shiffman, 2004). The items were modified so that they refer to their experiences as a child (e.g., "When I was a child, I was treated with less courtesy because of my race" and "When I was a child, I was called names because of my race" (see Attachment I). Responses on the 5-point Likert scale ranged from 0 (never) to 5 (very frequently).

Procedure

An experimenter informed participants that they will participate in two separate and unrelated studies, one on cognition and another on personality. To enhance the "two separate studies" cover story, participants reviewed and signed two different consent forms. In the "first study" participants completed the computerized intelligence test, and in the "second study" participants completed the implicit and explicit self-esteem and self-stereotyping measures which were counterbalanced. Next, participants completed the self-protective mechanism measures followed by the early experiences with racism measure. Finally, participants completed an extensive demographics

questionnaire, which probed for suspicion of the purpose of the study, and then participants were thoroughly debriefed. Following the same procedure as Study 1, we identified participants who strongly identified with being African American (n = 36) and conducted separate analyses including only those participants.

Results

Descriptives

Implicit and Explicit Self-Esteem. Scores on the measure of implicit self-esteem indicated that participants had relatively high implicit self-esteem (M = .68; SD = .35). The score on this measure was normally distributed ($zskew$ = -.54). Scores on the measure of explicit self-esteem indicated that participants had relatively high explicit self-esteem (M = 3.84; SD = .55, α = .87) and the distribution of scores was negatively skewed ($zskew$ = -2.70). Additionally, the measures of implicit and explicit self-esteem were not significantly correlated r = -.152, p = .33.

Implicit and Explicit Self-Stereotyping. Scores on the measure of implicit self-stereotyping indicated that participants did not strongly associate themselves with negative intelligence words (M = .26; SD = .31) and the

score on this measure was normally distributed (*zskew* = 1.52). Scores on the measures of explicit self-stereotyping indicated that participants viewed themselves relatively positively (M = 1.43; SD = .44, α = .48) and did not associate themselves highly with negative stereotypes (M = 2.15; SD = .83 α = .48). The score on the positive stereotype words was positively skewed (*zskew* = 3.75) and the scores on the negative stereotype words was normally distributed (*zskew* = 2.09). Additionally, the measure of implicit self-stereotyping was not correlated with positive stereotype words r = .135, p = .390 or negative stereotype words r = -.156, p = .317.

Early Experiences with Racism. Scores on the measure of early experiences with racism indicated that participants, on average, reported having a moderate amount of early experiences with racism as a child (M = 2.59; SD = 1.07, α = .92). Scores on this measure were normally distributed (*zskew* = 1.42).

Disengagement from Intelligence. Scores on the measure of disengagement from intelligence indicated that participants had low levels of disengagement from intelligence (M = 1.72; SD = 1, α = .70). Scores on this measure were positively skewed (*zskew* = 5.01).

Main Effects of Feedback on Implicit and Explicit Self-esteem

Unfortunately, a test of the primary hypotheses yielded no support for the predicted effect of feedback on implicit self-esteem. Specifically, an analysis of variance (ANOVA) revealed that although implicit self-esteem was somewhat lower in the negative feedback condition (M = .60) relative to the no feedback condition (M = .74), this effect was not statistically significant, F (1, 40) = 1.88, p = .18. However, an ANOVA revealed that strongly identified African American participants exhibited lower implicit self-esteem after receiving negative performance feedback (M = .51) compared to the no feedback condition (M = .78), F (1, 34) = 6.59, p = .015, Cohen's d = .875 (see Figure 2). As predicted, explicit self-esteem did not vary as a function of feedback F (1, 40) = .924, p > .05.

Main Effect of Feedback on Implicit and Explicit Self-stereotyping

Unfortunately, a test of the primary hypotheses yielded no support for the predicted effect of feedback on implicit self-stereotyping. Specifically, an analysis of variance (ANOVA) revealed that implicit self-stereotyping did not vary as a function of receiving negative feedback (M = .21) on an intelligence test versus no feedback

(M = .29), F (1, 40) = .870, p = .36. As predicted, we did not expect a significant effect to emerge on explicit self-esteem as a function of feedback, F (1, 40) = .753, p > .05.

Main Effect of Feedback on Early Experiences with Racism and Main Effect of Feedback on Disengagement from Intelligence

Unfortunately, a test of feedback on early experiences with racism yielded no support for the predicted effect of negative feedback on intelligence resulting in more reported early experiences with racism. Specifically, an ANOVA revealed that reports of early experiences with racism did not vary as a function of feedback F (1, 41) = .525, p = .473. Likewise, a test of feedback on disengagement from intelligence yielded no support for the predicted effect of negative feedback resulting in higher scores of disengagement from intelligence. An ANOVA revealed that scores on the disengagement from intelligence measure did not vary as a function of feedback F (1, 41) = .184, p = .670.

Additional Analyses Involving Implicit Self-Esteem for Strongly Identified African Americans

To test the relation between early experiences with racism and feedback, we conducted a hierarchical regression in which implicit self-esteem was used as the

outcome variable. In the first step of the regression equation, we included the predictor variables—early experiences with racism (which was centered) and feedback, followed by the addition of the two-way interaction variable. Results revealed a significant interaction effect between early experiences with racism and feedback, explaining an additional 5.6% of the variance in implicit self-esteem, Multiple R = .562, R^2 = .316, F (3, 32) = 4.92, p < .05 (see Figure 3). Simple slope analyses ((Aiken & West, 1991) revealed that, among participants who reported more early experiences with racism, negative feedback led to lower levels of implicit self-esteem compared to the no feedback condition, B = -.532, t(32) = -1.66, p < .05 (see Table 1). Furthermore, among participants who did not receive negative feedback (i.e., control condition), the more early experiences they had with racism, the higher levels of implicit self-esteem, B = .509, p = .02. No other relations were significant.

We used a similar regression model to test the combined effect of feedback and disengagement from the intelligence domain on implicit self-esteem. The main effect of disengagement from intelligence was not

significant, B = -.168, p = .381 and interaction effect was not significant, B = .049, p = .799.

Additional Analyses Involving Explicit Self-Esteem for Strongly Identified African Americans

To test the relationship between disengagement from intelligence and feedback, on explicit self-esteem, we conducted a hierarchical regression in which explicit self-esteem was used as the outcome variable. In the first step of the regression equation, we included the predictor variables—disengagement (which was centered) and feedback, followed by the addition of the two-way interaction variable. Results revealed a marginally significant interaction effect of Disengagement X Feedback, explaining an additional 2% of the variance in explicit self-esteem, Multiple R = .442, R^2 = .195, F (3, 32) = 2.59, p = .07 (see Figure 4). The pattern suggests that among participants who strongly disengage from intelligence, those who receive negative feedback report higher explicit self-esteem compared to participants who receive no feedback, b = .172, $t(32)$ = .90, p = .381. These patterns are in line with what Crocker et al. predict about African Americans adopting protective mechanisms when faced with a threat to the self. We also tested the relationship between early experiences with racism and feedback on

explicit self-esteem and there were no significant main effects or interactions.

Simple slope analyses revealed that, among participants who weakly or strongly disengaged from intelligence, feedback did not affect explicit self-esteem, *Bs* = -.08, .22, *ps* = 36, 44, respectively.

We used a similar regression model to test the combined effect of feedback and early experiences with racism on explicit self-esteem. The main effect of early experiences with racism was not significant, $B = -.443$, $p = .09$ and interaction effect was not significant, $B = .36$, $p = .799$.

The Effect of Feedback on Implicit and Explicit Self-Stereotyping for Strongly Identified African Americans

The effect of feedback on implicit and explicit self-stereotyping revealed no significant main effects or interactions even with strong ethnic identification as a moderator.

CHAPTER FOUR

GENERAL DISCUSSION

The purpose of the current research was to test the APE model (Gawronski & Bodenhausen, 2006) as a framework for demonstrating the conditions under which the implicit and explicit self-evaluations of African Americans are affected. For African-Americans, threatening feedback about an intellectual task when their ethnic identity is salient should activate associative and propositional processes. In support of these hypotheses, Study 1 showed that among African-American participants whose ethnic identity was salient, those who received negative feedback exhibited lower implicit self-esteem, but no effect on explicit self-esteem, compared to those receiving no feedback. However, among participants whose ethnic identity was not made salient, there were no significant effects of implicit or explicit self-esteem as a result of feedback. The purpose of Study 2 was to provide additional evidence to support the proposed propositional versus associative processes underlying implicit and explicit self-evaluations. To this end, Study 2 assessed a second measure of self-evaluations, self-stereotyping, and examined the effects and relations among self-evaluations,

early experiences with racism, and disengagement from intelligence domains as a protective mechanism. We predicted that negative feedback will result in lower implicit self-esteem, higher implicit self-stereotyping, more reported early experiences with racism, and more disengagement from an intelligence test compared to receiving no feedback. Further, we predicted that negative feedback will not affect explicit self-esteem or explicit self-stereotyping. Also, we predicted that frequent early experiences with racism will be associated with low implicit self-esteem and high implicit self-stereotyping among participants who receive negative feedback (relative to a no-feedback condition). Similarly, we predicted that higher disengagement scores from intelligence will be associated with high explicit self-esteem and low explicit self-stereotyping among participants who receive negative feedback (relative to a no-feedback condition).

Studies 1 and 2 demonstrated that, when their ethnicity is made salient, strongly identified African Americans exhibited lower implicit self-esteem, but not lower explicit self-esteem, after receiving negative performance feedback on an intelligence test. Contrary to our predictions, feedback did not affect implicit or explicit self-stereotyping, nor did it have a main effect

on early experiences with racism and disengagement from the intelligence domain. However, in partial support of the APE model, frequent early experiences with racism resulted in lower implicit self-esteem among participants who received negative feedback compared to participants who did not receive any feedback. Further, greater disengagement from the intelligence domain was associated with high explicit self-esteem (but not implicit self-esteem) among participants who did not receive negative feedback.

The current research sought to understand the processes involved in evaluating the self of African-Americans by integrating the self-protective mechanism literature and the dual processing literature. According to the APE (Gawronksi & Bodenhausen, 2006), a dual processing model, automatic processes affect implicit self-evaluations and propositional processes affect explicit self-evaluations. Specifically, implicit self-evaluations are affected by contextual cues that trigger old evaluations that are stored in memory and explicit self-evaluations are affected by the propositions individuals introduce or add to assess the validity of an automatic evaluation. We proposed that the self-protective mechanisms (Crocker & Major, 1989) that African Americans

adopt when they receive threatening intelligence-related feedback linked to their ethnicity serve as propositional processes when assessing the accuracy of an evaluation and are shown on explicit measures of self-evaluations. Furthermore, we proposed that early experiences with racism are more accessible when African Americans' ethnic identity is made salient and they receive threatening feedback, and thus activate automatic processes which are shown on measures of implicit self-evaluations.

Our results bridge the literatures on the self-protective mechanisms of African Americans and the literature on the APE model. A major aspect of the APE model is that propositional processes are used to test the validity of an associative evaluation. In the current study, the associative evaluation was low implicit self-esteem, and the propositional process was the use of protective mechanisms (i.e., disengaging from intelligence), which resulted in no differences on explicit self-esteem between experimental and control groups The APE model predicts that such an effect should occur when there are contextual cues (i.e., negative feedback) that trigger old evaluations in memory. Further, they predict that when the evaluation is deemed invalid, explicit self-evaluations may not be affected because

propositions are considered - such as self-protective mechanisms -- to combat any "invalid" evaluations. Thus, the current studies provide partial support for the predictions associated with the research on self-protective mechanisms and the APE model.

It appears that strong identification with being African American moderates the relationship between feedback and self-esteem. We found that participants who strongly identify as African American show lower levels of implicit self-esteem when they receive negative feedback compared to a no-feedback condition. This suggests that strong identifiers may be more aware of the stigma associated with their group and certain cues (i.e., negative feedback) trigger old evaluations of the stigma that are stored in memory, resulting in lower implicit self-esteem.

The self-evaluations of members from stigmatized groups may be influenced by stigma but only for individuals who strongly identify with that group (Rosenberg, 1979). Thus, self-esteem may be affected by the recollection of early experiences with racism which may be more accessible to individuals who strongly identify with a stigmatized racial group. African American's opinions (i.e., private regard) about their

social group predicted personal self-esteem for African Americans who highly identified with their racial group, but not for those who were low identifiers (Rowley, Sellers, Chavous, & Smith, 1998). Similarly, one study showed that women who highly identified with their gender showed lower performance than low identified women in a stereotype threat context (Wout, Danso, Jackson, & Spencer, 2008). Okeke, Howard, Kurtz-Costes, and Rowley (2009) found that racial centrality moderated the relationship between academic race stereotypes and self-concept, such that participants who endorsed academic race stereotypes had lower academic self-concepts when they highly identified as African American. These findings suggest that racial centrality can serve as a moderator when examining performance and self-perception and it is an important variable to consider when examining the impact of a stigmatized identity on self-evaluations.

The current research has implications for the gap or education disparity between African American and White students' academic performance because negative self-evaluations or the internalization of stigma can lead to negative performance behavior. Situational cues that suggest that negative stereotypes are representative of an individual in a threatening situation (i.e., test-taking

environment) can result in low performance. In their classic stereotype-threat study, Steele and Aronson (1995) found that when African American participants were told that a test would be diagnostic of their intellectual ability, they underperformed compared to a group that was not given such information. They conclude that this process occurs because African Americans are aware of the negative stereotypes that exist about their group and the context creates a threat that the individual does not wish to confirm. The APE model (Gawronski & Bodenhausen, 2006) argues that the context (e.g., taking an intelligence test) is triggering old evaluations stored in memory and thus influencing self-evaluations and their performance. Perhaps African Americans underperform when reminded of their ethnicity because their old self-evaluations (i.e., low self-esteem) are being triggered when faced with a threat to the self. It should be noted that when African Americans are not reminded of their ethnicity, they do not show lower self-esteem (see Study 1). When a stigmatized identity is induced through contextual cues (i.e., ethnic identity salience) the outcome can be stress or anxiety which can deplete cognitive resources to perform on a task (Schamder & Johns, 2003). Thus, African Americans whose stigmatized identity is salient may perform poorly in

school because cognitive resources are inaccessible as a result of stress and anxiety induced by threats in the environment. Research on stereotype threat (Steele & Aronson, 1995) suggests that the mechanism that leads to stereotype threat is possibly anxiety which therefore results in low test performance.

A short term effect of low implicit self-esteem in individuals is that they may be defensive in relevant situations (i.e., receiving negative performance feedback) that threaten their self-concept. Jordan, Spencer, and Zanna (2003) found that among participants who had high explicit self-esteem, those who learned that they had low implicit self-esteem (following negative performance feedback) became defensive. More specifically, they rationalized their decisions more and highly favored in-group members in a minimal group context. Jordan et al. (2003) suggests that high explicit self-esteem individuals tend to be more aggressive and derogate other people. Thus, it is the low implicit self-esteem in the individuals who also have high explicit self-esteem that possibly leads to the derogating behavior that likely serves as a protective mechanism. For participants who highly identified with being African American, they showed lower implicit self-esteem when receiving negative

feedback, but their explicit self-esteem was unaffected and was relatively high. Thus, if given the opportunity to engage in defensive behavior previous research predicts that they would.

The long term effects of low implicit self-esteem may be that these individuals are more likely to use protective mechanisms because they cannot reconcile that they have high explicit self-esteem, but implicitly have low self-esteem (Jordan et al., 2003). There are many ways to use protective mechanisms, such as disengaging from a domain that is not important to your social group or, as Jordan et al., (2003) found, people can become defensive by derogating others or trying hard to rationalize a decision. Another long term effect of low implicit self-esteem would be depression and perhaps a damaged overall well-being (Ashburn-Nardo, 2010). Given the pervasiveness of implicit self-esteem, more research is needed to understand its long term implications.

The data of Study 1 and Study 2 demonstrate that explicit self-evaluations are unaffected by ethnic identity salience and negative performance feedback. These data also demonstrate that African-Americans adopt protective mechanisms to shield the self from threats in their environment. If African Americans use protective

mechanisms such as disengagement from an intelligence domain, then such mechanisms can have the unfortunate effect of compromised school performance (Steele, 1997). Put differently, the negative consequence to disengaging from intelligence domains is that students may not be motivated to perform well in school (Major & Schmader, 1998; Steele, 1997).

Limitations

Given that the current samples consist of college students, there may be some concerns about the design of the study. Although the present and other studies primarily use a college student samples (e.g., Crocker, Voelkl, Testa, & Major, 1991; Major, & Schmader, 1998; Major, Spencer, Schamder, Wolfe, & Crocker, 1998), Twenge and Crocker (2002) state that African American college students' high explicit self-esteem (relative to Whites) could be a reflection of them learning about history and cultural achievements of African Americans. There is also support that African American-centered education increases self-esteem in African Americans (Baldwin, Brown, & Rackley, 1990; Berger & Milem, 2000). Based on this research, it is questionable whether the effect of high explicit self-esteem would generalize to a sample of

African Americans who did not attend college. I would argue that the explicit self-esteem of African American non-college students or graduates would mirror that of African American college students or graduates. African American grassroot organizations and political movements in the media (e.g., NAACP) suggest that the plight of African Americans was due to institutional racism. This message can be used as a protective mechanism. In addition, the government has issued policies such as affirmative action which acknowledges that some companies may not hire stigmatized individuals unless it was encouraged. This point supports the protective mechanism argument that, "I wasn't hired because of my stigmatized identity." Therefore, I argue that there are multiple situations in the general public in which protective mechanism may be adopted and thereby result in high explicit self-esteem for African Americans who have not attended college. However, most research studies use a college sample and the notion that African American non-college students or graduates have similar levels of self-esteem as African American college students or graduates should be tested.

Another limitation to Study 2 is the relatively low sample size. The pattern of results are in line with most

of our predictions, but they were, in some instances, not significant. We suspect that this is due to the small sample size. Adding participants will allow us to conduct a stronger test of the effects of feedback, early experiences with racism, and disengagement from intelligence on the implicit and explicit self-esteem of African Americans. The present data allowed us to test the effects of feedback among strongly identified African Americans only. To conduct a true of the moderating effect of ethnic identification, participants who weakly versus strongly identified will need to be recruited.

We found no effect of feedback on implicit or explicit self-stereotyping. The measure we used consisted of unintelligent words (i.e., naïve, gullible) and negative body related words (i.e., diseased, sick). It is plausible that this measure did not tap into the construct of self-stereotyping. We predicted that participants who received negative feedback would associate highly with the unintelligent words opposed to the irrelevant, negative body related words. Our prediction was not supported, there was no difference between the negative feedback condition and the no feedback condition. Perhaps the terms, "naïve" and "gullible" do not represent unintelligence in the sense of academic unintelligence.

African Americans are stereotyped to be unintelligent, but this sense of unintelligence is primarily in the academic sense and not in other domains such as social intelligence. In other words, "naïve" and "gullible" are stereotypes that are not particular to African Americans, therefore, when African Americans see these words, they may not associate with these words because they are irrelevant to academic intelligence and are more relevant to interpersonal relationships.

Future Direction

As mentioned earlier, our participants are college students. To fully understand the self-evaluations of African Americans, it will be important to examine a population of African Americans who are not college students. African Americans do not make up a large sample of college students, therefore, there is likely a difference in the thoughts and behaviors of college and non-college African Americans. Thus, future studies should focus on examining the self-evaluations of a community sample of African Americans to see if their self-evaluations are different than those of a college sample of African Americans. As stated previously, I suspect that there will be no major differences between

African American college students and graduates and African American non-college students or graduates when considering self-esteem following a threat to the self. However, this is an empirical question that can be scientifically addressed.

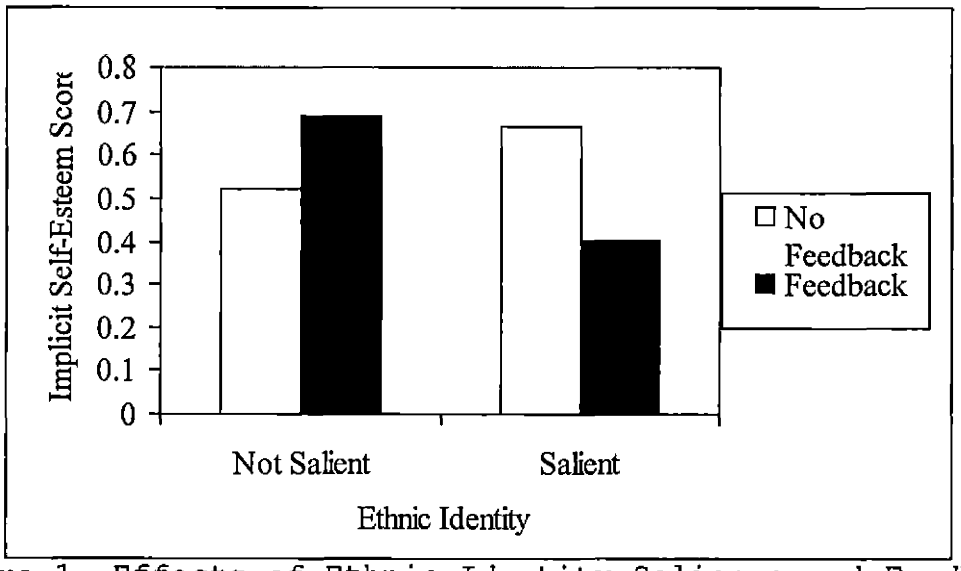


Figure 1. Effects of Ethnic Identity Salience and Feedback on Implicit Self-esteem. Higher Numbers on the Y-axis Signify Higher Implicit Self-esteem

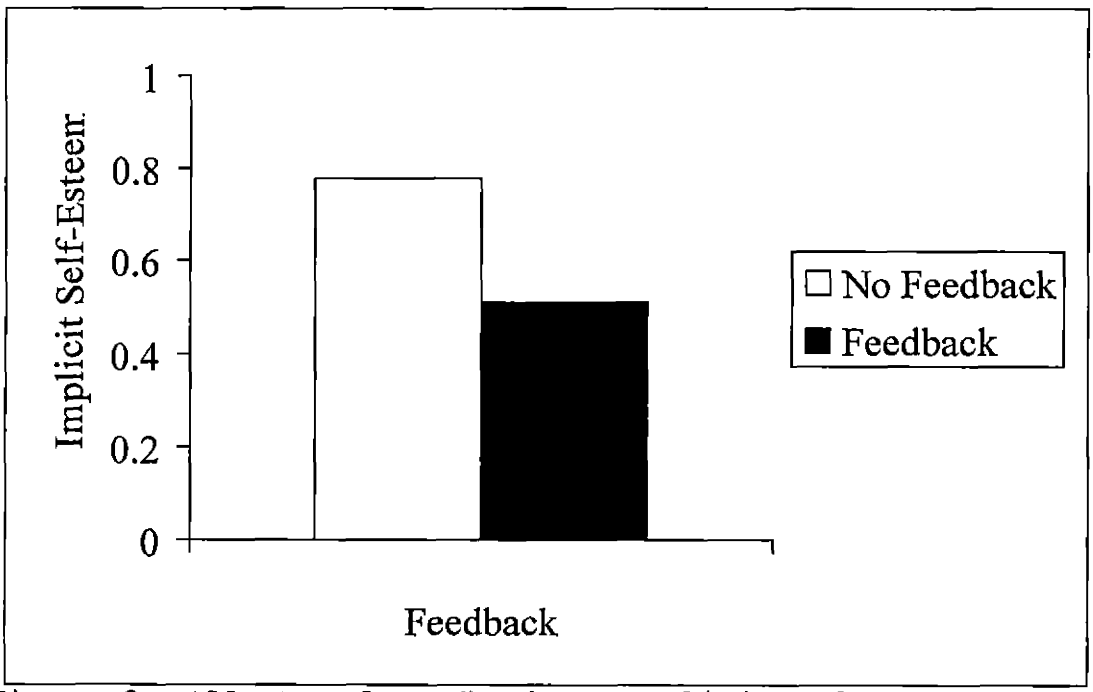


Figure 2. Effects of Feedback on Implicit Self-esteem of Strongly Identified African Americans. Higher Numbers on the Y-axis Signify Higher Implicit Self-esteem

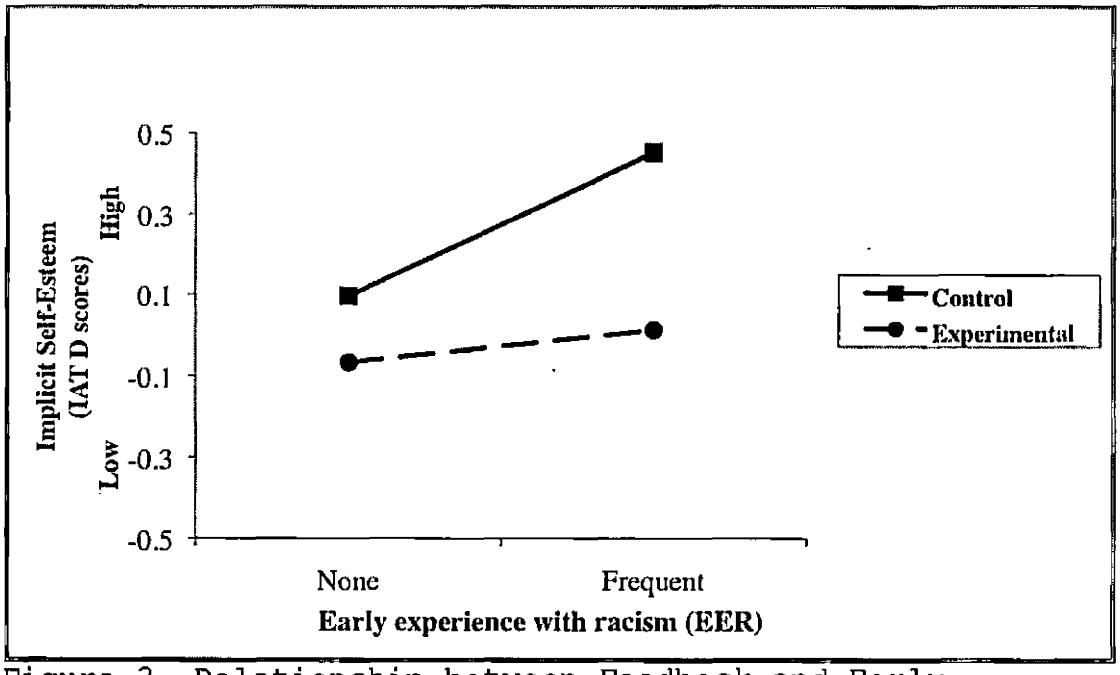


Figure 3. Relationship between Feedback and Early Experiences with Racism on Implicit Self-esteem. Higher Numbers on the Y-axis Signify Higher Implicit Self-esteem

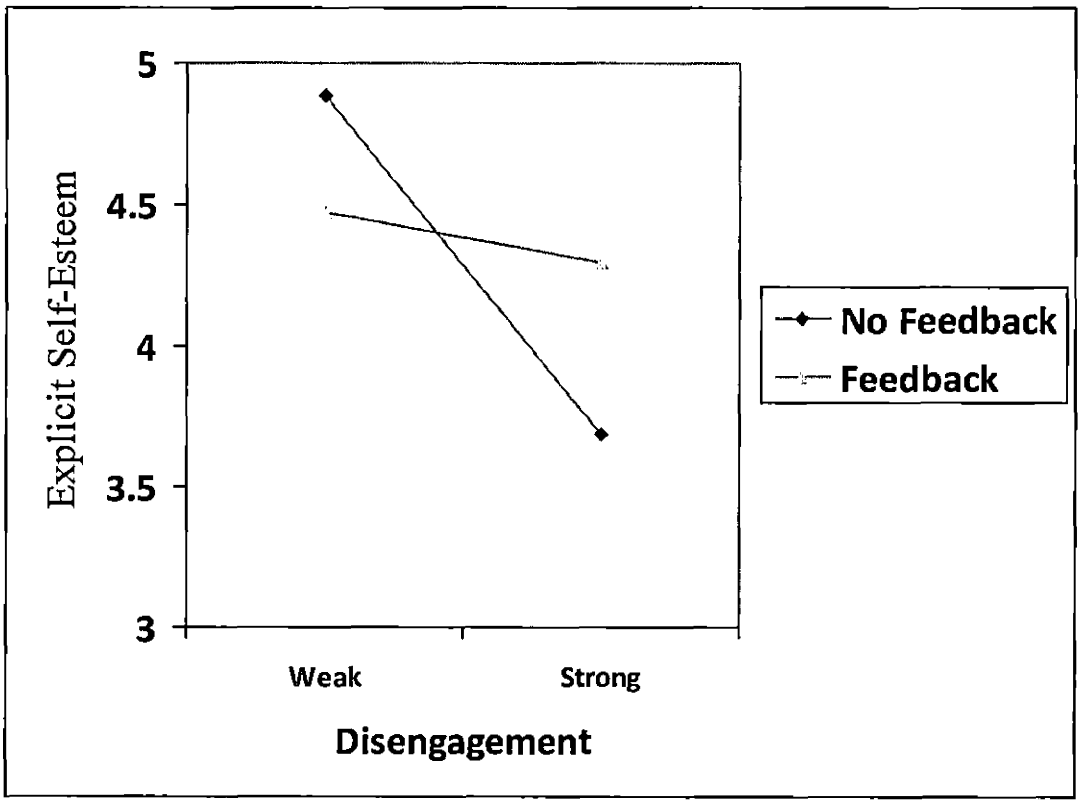


Figure 4. Relationship between Feedback and Disengagement from Intelligence on Explicit Self-esteem. Higher Numbers on the Y-axis Signify Higher Explicict Self-esteem

Table 1. Mean Effects of Feedback on Implicit and Explicit Self-esteem as a Function of Levels of Disengagement from Intelligence and Early Experiences with Racism.

	Implicit Self-Esteem		Explicit Self-Esteem	
	Feedback	No Feedback	Feedback	No Feedback
Disengagers				
Strong	0.56	0.61	4.14	3.77
Weak	0.46	0.88	3.69	3.73
Early Experiences				
Frequent	0.57*	0.94	3.43	3.73
Few	0.43	0.74	3.78	4.01

Note. ** denotes significance at $p < .05$ and * denotes marginal significance $p < .10$.

APPENDIX A

INTELLIGENCE TEST

Intelligence Test

1.

Which is the odd one out?

Mars, Jupiter, Comet, Earth, Neptune

a Mars
b Jupiter
c Comet
d Earth
e Neptune

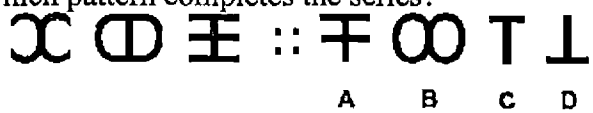
2

Library is to book as book is to:

a Page
b Copy
c Binding
d Cover

3

Which pattern completes the series?



A B C D

a A
b B
c C
d D

4

Which two words are closest in meaning?

Composite, Synthetic, Shabby, Different, Pseudo, Symbolic

a Composite and Different
b Synthetic and Symbolic
c Shabby and Pseudo
d Synthetic and Pseudo
e Different and Symbolic

5

Ice is to water as liquid is to:

a Gas
b Steam
c Temperature
d Solid

6

A regular octagon can be divided into 8 identical triangles by drawing how many straight lines?

a 4
b 5
c 6
d 8

7

Choose the answer that best completes the series.

Euro, Dollar, Franc, Peso,

a Yen
b Currency
c Cash
d Check

8

165135 is to peace as 1215225 is to:

a Leaf
b Love
c Loop
d Castle

9

A university library budget committee must reduce exactly five of eight areas of expenditure -- G, L, M, N, P, R, S, and W -- in accordance with the following conditions:

If both G and S are reduced, W is also reduced.
If N is reduced, neither R nor S is reduced.
If P is reduced, L is not reduced.
Of the three areas L, M, and R, exactly two are reduced.

Which of the following could be a complete and accurate list of the areas of expenditure reduced by the committee?

G, L, M, N, W
G, L, M, P, W
G, M, N, R, W
G, M, P, R, S
L, M, R, S, W

10

A university library budget committee must reduce exactly five of eight areas of expenditure -- G, L, M, N, P, R, S, and W -- in accordance with the following conditions:

If both G and S are reduced, W is also reduced.
If N is reduced, neither R nor S is reduced.
If P is reduced, L is not reduced.
Of the three areas L, M, and R, exactly two are reduced.

If W is reduced, which of the following could be a complete and accurate list of the four other areas of expenditure to be reduced?

G, M, P, S
L, M, N, R
L, M, P, S
M, N, P, S
M, P, R, S

11

A university library budget committee must reduce exactly five of eight areas of expenditure -- G, L, M, N, P, R, S, and W -- in accordance with the following conditions:

If both G and S are reduced, W is also reduced.
If N is reduced, neither R nor S is reduced.
If P is reduced, L is not reduced.
Of the three areas L, M, and R, exactly two are reduced.

If P is reduced, which one of the following is a pair of areas of expenditure both of which must be reduced?

G, M
M, R
N, R
R, S
S, W

12

A university library budget committee must reduce exactly five of eight areas of expenditure -- G, L, M, N, P, R, S, and W -- in accordance with the following conditions:

If both G and S are reduced, W is also reduced.
If N is reduced, neither R nor S is reduced.
If P is reduced, L is not reduced.
Of the three areas L, M, and R, exactly two are reduced.

If both L and S are reduced, which one of the following could be a pair of areas of expenditure both of which are reduced?

G, M
G, P
N, R
N, W
P, S

13

A university library budget committee must reduce exactly five of eight areas of expenditure -- G, L, M, N, P, R, S, and W -- in accordance with the following conditions:

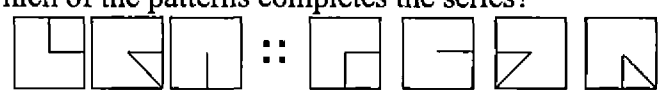
If both G and S are reduced, W is also reduced.
If N is reduced, neither R nor S is reduced.
If P is reduced, L is not reduced.
Of the three areas L, M, and R, exactly two are reduced.

Which one of the following areas must be reduced?

G
L
N
P
W

14

Which of the patterns completes the series?



a A
b B
c C
d D

15

Aztecs is to Mexico as Incas is to:

a Europe
b Peru
c Atlantis
d Babylon

APPENDIX B

SELF-ESTEEM IMPLICIT ASSOCIATION TEST STIMULI

Self-Esteem Implicit Association Test Stimuli

Me: I, me, my, mine, myself

Not me: they, them, their, theirs, others

Pleasant: smile, gift, joy, paradise, laughter

Unpleasant: filth, cancer, vomit, war, poison

APPENDIX C

STATE SELF-ESTEEM SCALE

State Self-esteem Scale

(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.)

Using the following scale, place a number on the line to the right of the statement that indicates what is true for you at this moment:

1 = not at all, 2 = a little bit, 3 = somewhat, 4 = very much, 5 = extremely

1. I feel confident about my abilities. _____
2. I am worried about whether I am regarded as a success or failure. _____
3. I feel satisfied with the way my body looks right now. _____
4. I feel frustrated or rattled about my performance. _____
5. I feel that I am having trouble understanding things that I read. _____
6. I feel that others respect and admire me. _____
7. I am dissatisfied with my weight. _____
8. I feel self-conscious. _____
9. I feel as smart as others. _____
10. I feel displeased with myself. _____
11. I feel good about myself. _____
12. I am pleased with my appearance right now. _____
13. I am worried about what other people think of me. _____
14. I feel confident that I understand things. _____
15. I feel inferior to others at this moment. _____
16. I feel unattractive. _____
17. I feel concerned about the impression I am making. _____
18. I feel that I have less scholastic ability right now than others. _____
19. I feel like I'm not doing well. _____
20. I am worried about looking foolish. _____

APPENDIX D

DEMOGRAPHICS QUESTIONNAIRE

Demographics Questionnaire

1. What is your gender?

2. What is your age?

3. What is your resident status?
   U.S. Citizen
   Permanent Resident
   Foreign Student
   Other (Specify)

4. Please indicate which area your undergraduate major belongs from the list below
   Arts and Letters
   Business
   Education
   Natural Sciences
   Social and Behavioral Sciences
   Interdisciplinary
   Undeclared or uncertain

5. What is your FIRST language (i.e., the language you speak the most fluently)?

6. If English is not your first language, how long have you been speaking English?
   Less than 1 year
   1-4 years
   5-10 years
   11-15 years
   More than 15 years
   Does not apply

7. Please check the box that best describes you:
   American Indian/Alaskan Native
   Asian or Pacific Islander
   Black, not of Hispanic origin
   Hispanic
   White, not of Hispanic origin
   Multi-racial (Specify)
   Another ethnicity not listed

8. My vision is:
   Normal without glasses/contacts
   Normal with glasses or contacts that I am wearing now
   Require glasses/contacts, but I DON'T have them with me

9. How comfortable do you feel using computers?
   Uncomfortable
   Somewhat uncomfortable
   Somewhat comfortable
   Comfortable

10. What type of computer do you use most often?
    PC compatible/PC type
    Apple/Macintosh

11. Please indicate which psychology courses you have taken from the list below. Please check all boxes that apply and then click "Continue".
    Psychology 310 (advanced research methods)
    Psychology 311 (experimental)
    Psychology 382 (social)
    Psychology 385 (personality)
    Psychology 421-432 (advanced seminar)
    Psychology 431-438 (advanced lab)

APPENDIX E

SUSPICION OF PURPOSE OF THE STUDY QUESTIONNAIRE

Suspicion of Purpose of the Study Questionnaire

Questionnaire about the studies

1. **In the first study, you completed an intelligence test. Did you receive feedback (i.e., a score) about your responses?**

   ____ YES ____ NO

2. **Can you describe your thoughts and feelings about the intelligence test (and, if you received a score, your feelings about it as well)?**

   _____

   _____

   _____

3. **IF YOU RECEIVED A SCORE, please indicate how you felt about the score:**

   Negative 1.....2.....3.....4.....5.....6.....7 Positive

4. **What do you think the purpose of the two studies was about?**

   _____

   _____

   _____

3. **Do you think there was any connection between the first study and the second study?**

   ___ YES ___ NO

   IF YES: Can you elaborate on what you think the connection was?

   _____

   _____

   _____

PLEASE TURN TO THE OTHER SIDE.

4. Do you think your responses on the intelligence test or the feedback you received in the first study affected your responses in the second study?

___ YES ___ NO

IF YES: Can you elaborate on how you think your responses were influenced?

_____

_____

_____

Thank you! Please open the door and have a seat.

APPENDIX F

DEBRIEFING STATEMENT AND ACKNOWLEDGMENT OF FEEDBACK

Debriefing Statement and Acknowledgment of Feedback

Explanation of the Study

Please Read Carefully

Explanation of the Study

The study you completed is examining the relation between feedback on a bogus test and African-Americans' self-evaluations. All participants completed the same intelligence test. Regardless of performance, half of the participants received negative feedback about their performance; the other half received no feedback. In general, we expect that individuals who receive negative feedback will experience lower levels of self-esteem and use negative stereotypes about African-Americans to evaluate themselves.

It is very important that you know and understand that for *participants who received feedback, that the feedback was bogus – in other words, it was not based on actual responses and, in reality, the feedback was predetermined by the computer.* Specifically, half of the participants did not receive any feedback after completing the intelligence test, and the other half received a score of 47th percentile. Again, this score had been determined prior to their arrival and it was not influenced by their performance. In other words, participants who received feedback, that percentile score contained absolutely no information about their actual responses on the test. This deception was necessary because the study examines if the feedback that people receive about their own intelligence influences their self-evaluations.

We thank you for participating. Your responses are important to our research because we hope to understand the psychological processes that lead to negative self-evaluations.

Acknowledgement of Feedback

I completely understand that the test was not a real measure of intelligence, and that some participants received bogus feedback about their performance and others received no feedback about their performance. For participants who received feedback, the feedback was bogus and does not reflect intelligence at all. I had the opportunity to ask questions and understand that the investigators will answer any future questions I may have about this research and/or about participants' rights. I will be given the experimenter's information for my records in order to ask any questions I may have in the future.

_____

Print Name

_____ _____

Signature Date

The Cognitive and Personality Studies

APPENDIX G

SELF-STEREOTYPING STIMULI

Self-stereotyping Stimuli

IAT:

Mind-related negative stereotypes: *Naïve, Gullible, Unintelligent*

Body-related negative stereotypes: *Frail, Sick, Diseased*

Self-Report:

Ambitious, smart, lazy, calm, stupid, loud, rich, ghetto, peaceful, welfare, aggressive, poor, hardworking, wealthy

APPENDIX H

SELF-PROTECTIVE MECHANISM MEASURE

Self-protective Mechanism Measure

Instructions: Please rate the degree to which you agree or disagree with the following statements (1 = strongly disagree to 7 = strongly agree):

1. No intelligence test will ever change my opinion of how intelligent I am
2. How I do intellectually has little relation to who I really am
3. I really don't care what tests say about my intelligence

Instructions: Please rate the degree to which you agree or disagree with the following statements (1 = strongly disagree to 7 = strongly agree):

1. Being good at academics is an important part of who I am
2. Doing well on intellectual tasks is very important to me
3. Academic success is not very valuable to me
4. It usually doesn't matter to me one way or the other how I do in school

APPENDIX I

EARLY EXPERIENCE WITH RACISM

Early Experience with Racism

Instructions: Please reflect back to when you were a child and think about your general childhood experiences. Rate the frequency for which the following has happened to you as a child (0 = never and 5 = very frequently):

1. When I was a child, I was treated with less courtesy because of my race.
2. When I was a child, I was treated with less respect because of my race.
3. When I was a child, I received poorer service because of my race.
4. When I was a child, people would act as if I was not smart because of my race.
5. When, I was a child, people would act as if they were afraid of me because of my race.
6. When I was a child, people would act as if I was dishonest because of my race.
7. When I was a child, people would act as if they were better because of my race.
8. When I was a child, I was called names because of my race.
9. When I was a child, I was threatened or harassed because of my race.

REFERENCES

Ashburn-Nardo, L., Monteith, M. J., Arthur, S. A., & Bain, A. (2007). Race and the psychological health of African Americans. *Group Processes and Intergroup Relations, 10*, 471-491.

Briñol, P., Petty, R. E., & Wheeler, S. C. (2006). Discrepancies between explicit and implicit self-concepts: Consequences for information processing. *Journal of Personality and Social Psychology, 91*(1), 154-170.

Clark, K. B., & Clark, M. (1947). Racial identification and preference in Negro children. In T. M. Newcomb, & E. L. Hartley (Ed.), *Readings in social psychology,* (pp. 169-178). New York: Holt, Rinehart, & Winston.

Clark, R., Coleman, A. P., & Novak, J. D. (2004). Brief report: Initial psychometric properties of the everyday discrimination scale in black adolescents. *Journal of Adolescence, 27*, 363-368.

Cooley, C. H. (1956). *Human nature and the social order.* New York: Free Press.

Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review, 96*, 608-630.

Crocker, J., & Major, B. (2003). The self-protective properties of stigma: Evolution of a modern classic. *Psychological Inquiry, 14*(3&4), 232-237.

Crocker, J., Voelkl, K., Testa, M., & Major, B. (1991). Social stigma: The affective consequences of attributional ambiguity. *Journal of Personality and Social Psychology, 60*(2), 218-228.

Devine, P. G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology, 56,* 5-18.

Dijksterhuis, A. (2004). I like myself but I don't know why: Enhancing implicit self-esteem by subliminal evaluative conditioning. *Journal of Personality and Social Psychology, 86,* 345-355.

Farnham, S. D., Greenwald, A. G., & Banaji, M. R. S. (1999). Implicit self-esteem. In D. Abrams, & M. A. Hogg (Eds.), *Social identity and social cognition,* (pp. 230-248). Oxford: Blackwell.

Forman, T. A., Williams, D. R., & Jackson, J. S. (1997). Race, place, and discrimination. *Social Problems, 9,* 231-261.

Gawronski, B., & Bodenhausen, G. V. (2006). Associative and propositional processes in evaluation: An integrative review of implicit and explicit attitude change. *Psychological Bulletin, 132*(5), 692-731.

Gawronski, B., Bodenhausen, G. V., & Banse, R. (2005). We are, therefore they aren't: In-group construal as a standard of comparison for out-group judgments. *Journal of Experimental Social Psychology, 41,* 515-526.

Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review, 102*(1), 4-27.

Greenwald, A. G., & Farnham, S. D. (2000). Using the implicit association test to measure self-esteem and self-concept. *Journal of Personality and Social Psychology, 79*(6), 1022-1038.

Greenwald, A. G., Banaji, M. R., Rudman, L. A., Farnham, S. D., Nosek, B. A., & Mellot, D. S. (2002). A unified theory of implicit attitudes, stereotypes, self-esteem, and self-concept. *Psychological Review, 109*(1), 3-25.

Greenwald, A. G., McGhee, D. E., & Schwartz, J. K. L. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology, 74,* 1464-1480.

Greenwald, A. G., Poehlman, T. A., Uhlmann, E. L., & Banaji, M. R. (2009). Understanding and using the Implicit Association Test: III. Meta-analysis of predictive validity. *Journal of Personality and Social Psychology, 97,* 17-41.

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

Henderson-King, E. I., & Nisbett, R. E. (1996). Anti-Black prejudice as a function of exposure to negative behavior of a single Black person. *Journal of Personality and Social Psychology, 71,* 654-664.

Hogg, M. A., & Turner, J. C. (1987). Intergroup behaviour, self-stereotyping and the salience of social categories. *British Journal of Social Psychology, 26,* 325-340.

Jordan, C. H., Spencer, S. J., & Zanna, M. P. (2003). "I love me…I love me not": Implicit self-esteem, explicit self-esteem, and defensiveness. In S. J. Spencer, S. Fein, M. P. Zanna, & J. M. Olson (Eds.), *Motivated social perception: The Ontario symposium,* (Vol. 9, pp. 117-144). Mahwah, NJ: Lawrence Erlbaum.

Jordan, C. H., Spencer, S. J., Zanna, M. P., Hoshino-Browne, E., & Correll, J. (2003). Secure and defensive high self-esteem. *Journal of Personality and Social Psychology, 85*(5), 969-978.

Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of Health and Social Behavior, 40,* 208-230.

Laws, V. L. (2009). The motivation to resolve discrepancies between implicit and explicit self-esteem. *California State University, San Bernardino.*

Leary, M. R., Terry, M. L., Allen, A. B., & Tate, E. B. (2009). The concept of ego threat in social and personality psychology: Is ego threat a viable scientific construct? *Personality and Social Psychology Review, 13,* 151-165.

Major, B. (1995). Academic performance, self-esteem, and race: The role of disidentification. Paper presented at the Annual meeting of the *American Psychological Association,* New York.

Major, B., & O'Brien, L. T. (2005). The social psychology of stigma. *Annual Review of Psychology, 56,* 393-421.

Major, B., & Schmader, T. (1998). Coping with stigma through psychological disengagement. In J. Swim, & C. Stanjor (Eds.), *Prejudice: The target's perspective* (pp. 219-241). New York: Academic.

Major, B., Spencer, S., Schamder, T., Wolfe, C., & Crocker, J. (1998). Coping with negative stereotypes about intellectual performance: The role of psychological disengagement. *Personality and Social Psychology Bulletin, 24,* 34-50.

McKown, C., & Weinstein, R.S. (2003). The development and consequences of stereotype consciousness in middle childhood. *Child Development, 74,* 498-515.

Mead, G. H. (1934). Mind, self, and society. Chicago: University of Chicago Press.

Merton, R. K. (1948). The self-fulfilling prophecy. *Antioch Review, 8,* 193-210.

Miller, D. B., & MacIntosh, R. (1999). Promoting resilience in urban African American adolescents: Racial socialization and identity as protective factors. *Social Work Research, 23,* 159-169.

Nosek, B. A., Banaji, M. R., & Greenwald, A. G. (2002). Harvesting implicit group attitudes and beliefs from a demonstration web site. *Group Dynamics: Theory, Research, and Practice, 6,* 101-115.

Phinney, J. S., & Chavira, V. (1995). Parental ethnic socialization and adolescent coping with problems related to ethnicity. *Journal of Research on Adolescence, 5,* 31-53.

Phinney, J. S., & Cobb, N. J. (1996). Reasoning about intergroup relations among Hispanic and European American adolescents. *Journal of Adolescent Research, 11,* 306-324.

Robinson, M. D., Mitchell, K. A., Kirkeby, B. S., & Meier, B. P. (2006). The self as a container: Implications for implicit self-esteem and somatic symptoms. *Metaphor and Symbol, 21,* 147-167.

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 students and high school students. *Journal of Personality and Social Psychology, 74*(3), 715-724.

Rudman, L. (2004). Sources of implicit attitudes. *Current Directions in Psychological Science, 13,* 79-81.

Sanders, M. G. (1997). Overcoming obstacles: Academic achievement as a response to racism and discrimination. *Journal of Negro Education, 66,* 83-93.

Schmader, T., & Johns, M. (2003). Converging evidence that stereotype threat reduces working memory capacity. *Journal of Personality and Social Psychology, 84,* 440-452.

Siefert, K., Finlayson, T. L., Williams, D. R., Delva, J., & Ismail, A. I. (2007). Modifiable risk and protective factors for depressive symptoms in low-income African American mothers. *American Journal of Orthopsychiatry,* 77, 113-123.

Steele, C. M. (1997). A threat in the air: How stereotypes shape the intellectual identity and performance. *American Psychologist, 52,* 613-629.

Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual performance of African Americans. *Journal of Personality and Social Psychology, 69*(5), 797-811.

Takaki, R. (2008). A different mirror: A history of multicultural America. *Revised Edition.* New York: Bacy Bay Books.

Taylor, T. R., Kamarck, T. W., & Shiffman, S. (2004). Validation of the Detroit area study discrimination scale in a community sample of older African American adults: The Pittsburgh healthy heart report. *International Journal of Behavioral Medicine, 11,* 88-94.

Turner, J. C. (1999). Some current issues in research on social identity and self-categorization theories. In: N. Ellemers, R. Spears, & B. Doosje (Eds), *Social identity: Context, commitment, content* (pp. 6-34). Oxford: Blackwell.

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*(3), 371-408.

Wilson, T. D., Lindsey, S., & Schooler, T. Y. (2000). A model of dual attitudes. *Psychological Review, 107,* 101-126.