Self-Regulatory Beliefs, Values and Achievement

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Abstract
This study examined the frequency of motivational and cognitive self-regulatory behaviors, valuation, and achievement levels of 131 African American males and 154 African American females who attended high school in a large urban school district. The results suggest that African American females who receive free and reduced lunch more frequently exhibit motivational and cognitive self-regulatory attitudes and behaviors in academic settings, achieve higher grade point averages and were more likely to admire, respect and emulate achievement related behaviors than their same-SES male counterparts.

Introduction
Ultimately, the challenge faced by those who educate African American males of all socioeconomic groups is to convince them to exhibit the attitudes and behaviors that contribute to achievement. To this end, Tuckman (2003) developed four specific strategies for achievement borne of research on effectance and mastery motivation: take reasonable risk, take responsibility for your outcomes, search the environment and use feedback. These strategies encourage students to begin by analyzing the task and interpreting task requirements; then set task-specific goals, implement learning strategies, adjust their approach based upon internal and external feedback, and utilize volitional control to stay on-task (Tuckman 2001; Tuckman, 2002a; Tuckman et. al., 2002b). The utilization of these strategies has been found to increase academic achievement, particularly for underperforming African American college students (Tuckman, 2003).

Several research studies have suggested that the extent to which African American students employ motivational and cognitive processes in academic situations may relate to the manner in which Black students perceive their ethnicity (Franklin & Boyd-Franklin, 2000). Low-achieving African American students are often likely to take an inordinate amount of risk, perhaps based upon a failure to recognize the contingency between effort and outcomes (Gill, 1991). Low achieving African American students often shift responsibility to external causes in instances of failure based upon perceptions of racism and discrimination in their daily lives (McAdoo, 2002). With age, this tendency to blame forces outside of oneself for failure because stronger among African American students (Van Laar, 2000). Low-achieving African American students who perceive the school environment as dominated by a mainstream culture that is restrictive and foreboding may not be likely to ask questions and search the environment as an information processing strategy (Parham, White & Ajamu, 1999). Lastly, unsuccessful Black students are more likely than White students to receive inaccurate performance feedback from teachers and other adults; as a result, those students suffer both academically and psychologically. Inflated but inaccurate praise may also motivate distrust and may lead Black students to devalue and disregard even accurate feedback (Steele & Aronson, 1995).

The interplay of educational issues coupled with the external pressures of what is perceived as an unwelcoming societal structure may also exert an influence on the
achievement motivation, resulting in the formation of task values and career aspirations that may be qualitatively different for members of different socioeconomic groups as well as between males and females. Achievement values focus on the perceived importance, attractiveness or usefulness of achievement-directed attitudes or behaviors (Wigfield & Eccles, 1994). Values have motivational properties; students who place little value on academic achievement are not likely to utilize strategies or exhibit behaviors that will lead to school success (Graham, Taylor & Hudley, 1998). Researchers have further suggested that African American students may selectively devalue performance dimensions that are perceived to be incompatible with expected group behaviors (Steele & Aronson, 1995; Osborne, 1997). This is reflected in the self-esteem protecting practice of those African American students, who formulate and adopt a perspective which intentionally decries attitudes and avoids behaviors associated with academic achievement (Graham, 1997).

There is empirical evidence to suggest that Black males are at greater risk for the adoption of an anti-achievement value system than are Black females. Graham, Taylor and Hudley (1998) found that while African American girls expressed academic values that were similar to their high-achieving white classmates, African American boys expressed the lowest level of valuation for their high-achieving male classmates, reserving their respect and admiration for Black classmates who exhibited many undesirable classroom behaviors. This finding suggests that some African American adolescents associate being Black and male with deviant behavior and academic disengagement.

Additionally, with the flight of Black middle class from high-poverty inner-city areas, Black youth growing up in urban areas do not often have the opportunity to interact with adult role models that manifest the benefits of an adherence to mainstream norms (Walker & Sutherland, 1993). African American males, faced with a dearth of same-sex productive, successful, contemporary models to emulate, may look to athletes and entertainers as a source of pride in themselves and their race and as an endorsement of a path to success that does not necessarily include catering to mainstream values (Majors & Billson, 1992). In a detailed examination of the role of the Black male artist/entertainer, Saddik (2003) writes that these Black men “exhibit wealth in ways that highlight their having ‘made it’ in mainstream America...their performances of success ostentatiously oppose the elitist cultural display codes, patently resisting the hegemonic dictates of the mainstream” (p. 114). In these models, African American males who wish to circumvent traditional blueprints for economic amelioration find endorsement for a nonconformist perspective and a hope that they too can achieve a similar success on their own terms.

Problem
This study compared the self-regulatory beliefs and behaviors, valuation, and academic achievement of 131 African American males and 154 African American females of different socioeconomic groups. Specifically, this empirical investigation sought to answer the following research questions:

- Do African American males and females of different socioeconomic groups differ in their self-reported frequency of motivational and cognitive self-regulatory practices in academic settings?
- Are there differences in the academic achievement level of African American males and females of different socioeconomic groups?
- Do African American males and females of different socioeconomic groups express admiration, respect and a desire to emulate different academic behaviors?
Methodology
A total of 289 African American high school students from three public high schools in a large, Midwestern school district, of which approximately 56 percent of the student body is African American, participated in this study. Schools were selected to maximize variance in socioeconomic status and graduation rate among African American students in the sample, thus enhancing the generalizability of results. This group was comprised of 131 males (45%) and 154 females (55%). The mean age for male student-participants was 16.19, while that of female student-participants was 16.08. Sixty-two percent of male student participants reported receiving free or reduced lunch (n=82), as compared with sixty-nine percent of female student participants (n=109). Forty percent of males resided in a single parent home (n=52) as compared with forty-four percent of the female students in this sample (n=69). Seventy-three percent of male students reported receiving at least occasional academic support from a parent or guardian, as compared with seventy-nine percent of females in the sample.

Demographic Information. In addition to gender information, each student participant responded to the following open-ended query: “The career/job I most like to pursue is:_________”; and to each of the following structured items: “The one phrase that would best describe the peer I most admire is:_________”, “The one phrase that would best describe the peer I most respect is:_________”, and “The one phrase that would best describe the peer I most want to be like is:_________” with students selecting from among provided responses that support academic achievement (“works hard and gets good grades”, “always follows school rules”); those which undermine academic achievement (“tells jokes, fools around and does not get good grades”, “fights, gets suspended and does not follow school rules”); and those behaviors that were irrelevant with respect to high levels of achievement (“wears nice clothes”, “is good at sports”). These categorizations were adopted based upon the designations of Graham, Taylor and Hudley (1998).

The use of cognitive and motivational strategies in academic settings was assessed utilizing a revised version of the School Strategies Scale (Tuckman, 2000). The original 66 item instrument was designed to assess the frequency with which college students performed self-regulatory behaviors within the following domains: time management (i.e. I make to-do lists to help me get all of my schoolwork done on time); self-confidence (I think about the times in my life when I have been successful) taking responsibility (I focus on things I can control, not the things I can’t control), classroom strategies (I pay attention to what my teachers say is important so that I will know how to study); information processing (I ask myself questions so that I will understand new information); test preparation (When I have a difficult test, I study extra hard so I won’t be nervous); writing (I break a big homework assignment down into several parts that I can do more easily); and life management (After I make a mistake, I focus more and try harder to do well). Student-participants completed this instrument by responding as to how frequently they engage in motivational or cognitive achievement strategies on a five-point Likert scale that ranged from almost never (1) to almost always (5). Chronbach alpha reliabilities for these subscales ranged from .44 to .86.

For this sample, a shortened version of the School Strategies Scale was constructed and 38 of the highest loading individual items were selected and revised to assess self-regulatory behavior frequency among high school students. Factor analysis for this shortened version of the instrument suggested the existence of a motivational strategy use scale (which included items of the time management, self-confidence, taking
responsibility and life management subscales) and a cognitive strategy use scale (which included items of the classroom strategies, information processing, test preparation, and writing subscales). Chronbach alpha reliabilities for these two subscales were established as .78 and .73, respectively. Finally, grade point average was obtained for each student in the sample from current school records.

Results
Table 1 displays correlations among the three ratio-scaled variables: motivational strategy use, cognitive strategy use and grade point average. Statistically significant correlations (in all cases, those with a p value of less than .001) were found among the three variables. Because the motivational and cognitive strategy use subscales of the School Strategies Scale and grade point average were both conceptually related and statistically correlated, and to avoid the problem of inflated Type I error due to the number of separate statistical tests, a multiple analysis of variance (MANOVA), followed by univariate analyses, was conducted. See issue website http://rapidintellect.com/AEQweb/win2005.htm

Because the independent variables (gender, SES) divide the sample into four distinct groups, Wilks' Lambda was used for this analysis. This omnibus F test suggests that there is a statistically significant difference between the means of the three variables under examination (motivational strategy use, cognitive strategy use, GPA) for the different groups formed by categories of socioeconomic status and gender (as the F value (3, 267) equaled 3.693, yielding a p value of less than .001).

Next, post-hoc univariate F tests of group differences were used to determine which specific group's (males receiving free and reduced lunch, males not eligible for a discount, females receiving free and reduced lunch, females not eligible for a discount) mean scores result in a statistically significant difference. Mean scores for each variable by group and results of the univariate tests are displayed in tables 2 and 3, respectively. Significant univariate F tests and subsequent Bonferroni post-hoc analysis suggests that females receiving free or reduced lunch report significantly more frequent (a) motivational strategy use, (as the F value (3, 283) equaled 4.867, yielding a p value of less than .01); (b) cognitive strategy use, (as the F value (3, 283) equaled 6.223, yielding a p value of less than .001); and (c) achieve higher grade point averages, (as the F value (3, 283) equaled 9.944, yielding a p value of less than .001) than do male students who receive free or reduced lunch. Additionally, the difference in grade point average between higher-performing females who did not receive a lunch discount and lower-performing males who received free or reduced lunch was statistically significant. See issue website http://rapidintellect.com/AEQweb/win2005.htm

Pearson Chi-Square analyses were used to compare the distribution of males and females within the two socioeconomic groups’ responses to questions of academic values. Cross tabulation and results of the chi-square test for qualities respected, admired and emulated by each gender/socioeconomic status group are displayed in Table 4. To adhere to statistical criteria for expected cell frequency, student responses were classified as either achievement-related or irrelevant/anti-achievement. The data suggest statistically significant differences between the distribution of males who receive free or reduced lunch, males who receive no lunch discount, females who receive free or reduced lunch and females who receive no lunch discount with respect to qualities most admired (as the Chi-square statistic (3) equaled 18.438, yielding a p value of less than .001), qualities most respected (as the Chi-square statistic (3) equaled 16.145, yielding a p value of less than .01) and qualities most emulated (as the Chi-
square statistic (3) equaled 8.876, yielding a p value of less than .05). Specifically, a greater percentage of females who receive free or reduced lunch and females who receive no lunch discount expressed admiration (88 percent and 94 percent), respect (91 percent and 94 percent) and a desire to emulate pro-achievement qualities (83 percent and 90 percent) than did both males who received free or reduced lunch (who report percentages of 73, 81 and 70 for the three variables, respectively) and those who received no lunch discount (who report percentages of 67, 69 and 76 for the three variables, respectively). See issue website http://rapidintellect.com/AEQweb/win2005.htm

Discussion
These data imply an interaction between gender and socioeconomic status with respect to the use of motivational and cognitive strategies, academic achievement and valuation among African American students. One possible explanation for this interaction can be found in the work of So (1987). In a study of high-achieving, disadvantaged Hispanic adolescents, the author found that low SES students of color who maintained ties to their ethnic group while embracing a middle-class value orientation were academically more successful than low SES students who did not aspire to the middle class and did not maintain ties with their ethnic reference group. Among the students in this sample, African American females were more likely than males to embrace a middle-class value orientation with respect to academic achievement and the results of such were apparent in this subgroup’s level of academic performance. African American males, on the other hand, were more likely than females to express a value orientation that promoted values that did not contribute to high levels of academic success, in particular respect, admiration and a desire to emulate behaviors that lend themselves to athletic achievement.

In relation to the tendency for sports to divert African American’s attention from academic pursuits, even within an affluent suburban school district, Ogbu (2003) writes that “...both male and female students had active interests in sports, but with different emphases...the males looked at sports as an alternative to academics.” (p. 157). Additional analysis revealed that students who expressed respect and admiration for those behaviors that corresponded with careers in sports and entertainment achieved significantly lower grade point averages than did students who aspired to professional careers, (as expressed in an F (1, 287) equaling 9.863, yielding a p value of less than .01). It may be true that, due to the unequal emphasis on the lucrative material benefits of careers in sports and entertainment and the failure of many to emphasize the effort that such careers require, male students come to associate success in these fields with lower levels of effort and academic ability than that required to pursue careers in other domains. It would seem that the relationship between career aspirations and low levels of academic achievement is both widespread and troubling for African American students, since those who forsake achievement in pursuit of what is almost certainly an unrealistic goal will find themselves at the mercy of a system in which career advancement is based upon intellectual ability and effort.

Additionally, some authors have reported that the African American females of low SES homes are more likely to be socialized to see themselves in ways that contribute to academic success than are males of low SES homes. Previous sociologists have argued that Black females are socialized to value education as a means of economic independence, even to the point of being given priority with respect to parents’ decision of which child’s education to finance (Blau, 1981). Conversely, a dearth of Black male role models in the home coupled with structural impediments such as unemployment

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may discourage the efforts of some black males (Wilson, 1997). Hill (2002) examined
the socialization of African American parents of differing social class statuses and
found that among low SES Black parents, females were frequently socialized to be
strong, independent and capable, messages that were not as clearly communicated to
males in single parent, female-headed households. Instead, low SES males are
socialized towards a masculinity that embraces violence and hypersexuality. In each
instance, the internalization of these messages is likely to result in a vastly different
behavioral manifestation for low SES females as compared to their male counterparts.

Unfortunately, discursive academic practices often exacerbate the academic
difficulties of African American males. In a study that described the high school
experiences of African American males, Ferguson (2001) found that black males were
more likely than any other subgroup of the school to be suspended, expelled or sent to
an in-school detention room. Additionally, in separate studies both Mickelson (1990)
and Noguera (2001) found that African American males were the subgroup least likely
to report experiencing teacher support for academic success. Similarly, Ross & Jackson
(1991) found that teachers formulated differential expectations for Black males and
females; among 12 hypothetical case histories in which only race and gender were
revealed, teachers adopted lower expectations for prosocial classroom behavior and
achievement for aggressive Black male adolescents than for any other subgroup, a
finding that was a replication of teacher expectations for Black male elementary
students (Washington, 1982). These results are particularly troubling because to
discourage an aggressive, autonomous approach to learning is to suppress academic
self-regulation and a tendency to covet high levels of academic achievement.

The contribution of this study to the self-regulation literature is threefold. First, it
addresses concerns of Graham (1992) and others who laud the dearth of empirical
achievement motivation-related studies of African American students. Secondly, it
addresses the confound of ethnicity and socioeconomic status that will contribute to a
comprehensive understanding of African American students’ intellectual performance.
Thirdly, it extends the applicability of Tuckman’s (2001; 2002a; 2003; Tuckman et. al.,
2002b) Strategies for Achievement model by empirically demonstrating the viability of
four strategies: take reasonable risk, take responsibility for your outcomes, search the
environment and use feedback for enhancing the achievement of high school students
as well as college students.

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