

The Impact of Social and Cognitive Factors on the Academic Achievement of High
Achieving African American Undergraduates: An Exploratory Study

Kalynda C. Smith, Ph.D.

Hampton University

Abstract

There have been many theories regarding the academic experiences and academic success of African American students, but there is little empirical evidence to support or refute said theories (Belgrave & Allison, 2018). In many cases, African Americans have been included in educational and social psychological research, but in such small numbers that their contribution has been negligible. The current study sought to explore whether there were relationships between social and cognitive variables, specifically communalism, parental praise, academic identity, need for cognition and academic emotions, and the academic achievement of African American students attending a historically Black university. The populations of historically Black colleges and universities are mostly African American and provide an educational environment that has not often been included in educational research (Fleming, 1985; Allen, 1992; Cokley, 2000).

A mixed methods data collection strategy, quantitative measures and qualitative interviews, was used to collect data. Some results indicated that high achieving students, those with a grade point average of 3.0 or above, were significantly higher in communalism than low achievers. High achievers also experienced more positive academic emotions than low achievers. Participants were more likely to be in the diffusion stage of academic identity than any other. There were no statistically significant differences between high and low achievers on the need for cognition, and finally, interview questions regarding parental praise did not result in theoretical congruent themes. Some limitations of the study were that more high achievers and freshmen were recruited than low achievers or students of other class cohorts.

The Impact of Social and Cognitive Factors on the Academic Achievement of High Achieving
African American Undergraduates: An Exploratory Study

There is a discernable dearth in research examining the academic experiences of African American college students, and much of the research that has been done has focused on the experiences of African American college students attending Predominantly White Institutions (PWIs), comparing African American students' experiences to their White American counterparts (Belgrave & Allison, 1998; Fleming, 1985; Allen, 1992; Cokley, 2000). Currently, there is a need for research that examines the experiences of African American students, especially high achieving African American students, attending Historically Black Colleges and Universities (HBCUs) to determine these students' experiences absent of a comparison to non-Black students. HBCUs are an appropriate population from which to sample African American students because HBCUs graduate a disproportionate number of African American professionals in the United States, indicating that students attending HBCUs are likely to graduate and become successful professionals (Kim & Conrad, 2006).

There are many gaps in the literature regarding African Americans and academic achievement. Many theories suggest that African American students are likely to have different academic values and experiences compared to their White counterparts (Belgrave & Allison, 2014), but there has been very little empirical evidence to support this assertion. It has been theorized that African American students are likely to value and excel in communal education environments (Seiler & Elmesky, 2007; Cunningham & Boykin, 2004); however, while it has been suggested that HBCUs are more likely to adhere to the values of African Americans (Allen, 1992), little to no research has been done to determine whether or not HBCUs actually provide communal learning environments. Much research has also been

devoted to a more holistic study of the academic experiences of African Americans (Belgrave & Allison, 2014), but there has not been much examination of the actual intellectual processes of African Americans. Furthermore, there has been little research completed that addresses the academic identity development of African American students, especially of the millennial generation. Research examining these factors will allow researchers and policymakers alike to understand what values, beliefs, and resources high achieving African American undergraduates need to excel. Understanding what leads to success for high achieving African Americans will allow educators to better meet the needs of low achieving African American college students to assist in their academic improvement.

High academic identity has been found to lead to greater academic performance and achievement (Was & Isaacson, 2008). It has been argued that being high in academic identity may be difficult for African Americans due to a belief that the Eurocentric educational system is in opposition to African American cultural values and practices (Fordham & Ogbu, 1986; 2003; Neblett, Philip, Cogburn, & Sellers, 2006), and is not likely to provide comparable opportunities for African Americans as for White Americans (Lynn, 2006). Other studies have found that African Americans high in racial identity show an increase in academic achievement (Adelabu, 2008; Nasir, McLaughlin, & Jones, 2009). While these findings are mixed, there are little to no findings regarding the process of academic identity development for African Americans. Factors such as need for cognition and academic emotions have been found to impact academic achievement and are likely to impact, if not drive, academic identity development, but have not been explored among African Americans (Was & Isaacson, 2008; Caccioppo & Petty, 1982; Cacioppo, Petty, & Kao, 1984). These factors may play a part in the development of academic identity, which then in turn impacts academic achievement. The

purpose of this exploratory study was to determine the impact of communalism, academic identity, the impact of need for cognition and experience of academic emotions, on the academic achievement of high achieving African American students.

Communalism

Education. Seiler and Elmesky (2007) argue that African American students are more likely to excel in an Africentric education environment, which, among other factors, includes communalism. Communalism denotes an environment in which individuals work together to accomplish common goals, putting the success of the group over that of the individual (Seiler & Elmesky, 2007). Communalism is usually shared between a family, a community, or a tribe and includes a level of exclusivity of membership in the group (Nobles, 1991). In addition, researchers have found that families and communities of low social economic status are more likely to have communal relationships than those of higher social economic status in the U.S., and it is well known that African Americans are much more likely to be of low social economic status than White or Asian Americans (Fontenot, Semega, & Kollar, 2018, Kohn, 1969).

Communalism, in the form of the Jigsaw Classroom (Aronson, Blaney, Stephan, Sikes, & Snapp, 1978), for instance, can increase liking and reduce racial prejudice among students. Wilson-Jones and Caston (2004) have also found that African American students prefer communal learning, learning that promotes working together for a common reward, more than their White counterparts. In an experimental study, Albury (1993) found that African American students showed increased academic performance and learning on a communal task, as compared to an individualistic task, but also did well on a group competitive task. White American students showed better performance and preference for the individualistic task. These studies have been done primarily with children in pre- and secondary education. There

are very few studies that include African American undergraduate students attending HBCUs (or PWIs) that address the benefits or preference for communal learning. The current study sought to determine whether or not the preference for communalism impacted African American students' academic performance as measured by grade point average.

Families: Parental involvement and praise. Communalism may also include the influence that African American students' families have on their academic experience. Belgrave and Allison's (2014) discussion of communalism suggested that African American families may subscribe to the African tradition of communalism within the home, perhaps meaning that leaving home does not mean that the influence and the wellbeing of the family lessens for African American students. In a qualitative study, Brooks (2015) found that African American students are often motivated by their families to enroll in college. Not only do families influence the students to attend college, but also to attend certain colleges to uphold a family tradition, but conversely, to attend college because no one before them had been afforded that opportunity. Due to the relationship African American students have with their families, it can be argued that their academic experiences are impacted by their family on a day-to-day basis. Although both praise and involvement from parents have been shown to affect student emotion/engagement, achievement motivation, achievement orientation, and classroom achievement (Droe, 2013; Haimovitz & Henderlong 2011), little research has been conducted on the effects of different types of praise and levels of parental support/involvement within the African-American community. Praise significantly affects the ways in which students complete academic tasks, even over short periods of time. The literature demonstrates that it is not just the presence or absence of praise, but the *kind* of praise given by teachers affects resilience after initial failure, achievement motivation, and achievement orientation (Mueller & Dweck, 1998). Praising

intelligence (person praise) can actually undermine student performance by decreasing achievement motivation. Fifth grade students that received praise from teachers highlighting their intelligence were also more likely to quit after an initial failure, showing a decrease in resilience during academic tasks. Those receiving process praise, in this case praise for effort tied to outcomes, exhibited greater resilience after an initial failure, and a mastery achievement orientation (Mueller & Dweck, 1998).

Studies regarding praise are largely done with pre-secondary students, but Hancock (2002) found that when graduate students were alternately given verbal praise versus no praise at all, they spent a greater amount of time on academic tasks, and exhibited higher levels of academic achievement. There may even be differential effects of person versus process praise in college students dependent on classification. Haimovitz and Henderlong (2011) found that achievement motivation in college sophomores and juniors was decreased with person praise, while process praise seemed to be most effective in increasing achievement motivation in college seniors. Further research is necessary to further elucidate these apparent differences in effects of praise by classification.

Relationships with parents and have been shown to affect academic resilience, motivation, and achievement in African-American students, thus, the current study will examine the effect of praise received from parents. The current study will address the impact of communalism on African American students' academic experiences in the form of praise, support, and involvement of African-American parents, and how this affects achievement motivation, orientation, and academic emotion in African American students qualitatively in one-on-one interviews because there are no current quantitative surveys designed to do so. The findings from the interviews will serve to guide the creation of a Parental Praise Survey in future

research. Communalism will also be measured using the Communalism scale (Boykin, Jagers, Ellison, & Albury's, 1997) to quantitatively determine whether or not students are high or low in communal behaviors and attitudes.

Academic Identity

While many Africentric theorists (Belgrave & Allison, 2014) have suggested that African American students are more likely to prefer an Africentric approach to education, as has been previously discussed regarding communalism, very little research has been done to determine whether African American students have unique perspectives and values regarding learning and academic achievement. Not only must the impact of communalism be addressed regarding African Americans and academic achievement, but other factors that account for the variance in academic achievement should be studied. In particular, this study seeks to determine how academic identity develops for African American students, including an examination of need for cognition among African American students, as well as the impact that academic emotions have on students' academic identity.

Identity guides much of human behavior across several domains. When identity becomes salient for an individual, it is likely to guide that individual's behavior (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987; Brown, 2000). The impact of identity on academic achievement for African Americans has been debated, with some scholars finding that African Americans feel that being high in racial identity leads to being low in academic identity (Fordham & Ogbu, 1986), while others argue that African Americans can navigate both academic as well as "street" environments, allowing for them to be both high in racial as well as academic identity (Spencer, Noll, Stolfus, & Harpalani, 2001). However, both racial and academic identity have been found to develop over time, being contingent on the environment of the individual.

Erikson's (1963, 1968, 1980) theory of psychosocial development suggests that adolescents use high school as a time to try on different identities to determine which works best for them. Marcia's (1980) theory of identity development contributes to this notion by delineating specific stages of identity development. Marcia delineated four stages: identity diffusion, which is having no identity; identity foreclosure, settling on an identity with no exploration (for instance, a student's parents might tell her what major she must choose); identity moratorium, a time in which identity is explored; and identity achievement, an identity is found. It can be argued that academic identity development progresses in a similar way for college students depending on their experiences with their course material, campus activities and opportunities, professors, and peers. College students are likely to develop, or further develop, their academic identity during their college tenure and the greater the academic development, it is likely the higher the academic achievement and success (Was & Isaacson, 2008). To examine the development of academic identity for African American students, Was and Isaacson's Academic Identity Measure, which measures academic identity using Marcia's stage model of identity diffusion, foreclose, moratorium and achievement, was used.

Need for cognition. Need for cognition refers to the enjoyment of and desire for effortful thinking (Cacciopo & Petty, 1982). Several studies (Diseth & Martinsin, 2003; Richardson, Abraham, & Bond, 2012) have demonstrated that there is a relationship between need for cognition and academic achievement. What has not been addressed is whether there is a relationship between need for cognition and academic identity and the direction of this relationship. Very little, if any, research has focused directly on the need for cognition of African American students or what role need for cognition plays for African American students regarding academic identity development and academic achievement. It can be argued that

African American students who are already attending college are high in need for cognition and academic achievement, however; as stated previously, very little research has been done to give insight into African American students' academic perceptions, values, and experiences.

Belgrave and Allison (2014) suggest that African American students may be more interested in education as a tool for problem solving and not as a means of acquiring knowledge for knowledge's sake. If African American students see education as a tool to get employment to support themselves and their families, they may experience the equivalent of academic foreclosure. With this conclusion, it is also possible that need for cognition is then not related to academic identity or achievement. Not only does the academic identity status of African American college students need to be examined, but the relationship between need for cognition and academic identity, if there is one, must be determined as well. Need for cognition was measured using the Cacciopo, Petty and Koa's (1984) revised Need for Cognition Scale.

Academic Emotions. Academic emotions are emotions associated with academic tasks and environments (Pekrun, Goetz, Titz, & Perry, 2002). Pekrun and colleagues (2002) found that academic emotions are related to students' motivation, learning strategies, and overall academic performance. While academic emotions account for some of the variance in academic achievement for all students, very little research has explored the breadth of academic emotions and their part in the academic experience of college students. It is important to consider the impact academic emotions have on African American students' academic identity development and achievement due to the collection of research on the impact of stereotype threat on African American students' academic performance. Steele and Aronson's (1995) work has found that African American students tend to perform poorly on standardized tests compared to White

American students due to test anxiety resulting from African Americans' awareness of the negative stereotype that African Americans are not as intelligent as White Americans. This particular type of test anxiety has been used to explain at least part of the achievement gap between Whites and Blacks.

Test anxiety is clearly important when considering academic achievement, and has been studied across races, but Pekrun et al. (2002) notes other academic emotions have been largely ignored. Academic emotions include anxiety, hope, pride, relief, hopelessness, anger, shame and boredom. Considering these emotions when examining the academic experiences of African Americans is also important when considering the argument that African Americans are likely, at least to some extent, to use relational learning styles (Ibarra, 2001; Tomes, 2008). Relational learning styles, among other factors, include affect as being a part of how African Americans acquire and retain knowledge (Bell, 1994). Briefly, learners who use relational styles are impacted by the social environment in which information exists, the personal relevance of the information, the interconnectedness between the information, and the social environment and themselves. For relational learners, how they feel about what they are learning can impact whether they learn at all. If African Americans are likely to use relational learning styles, an understanding of the relationship between academic emotions and academic identity is necessary. While positive emotions are likely to lead to successful academic identity development, the experience of negative emotions in particular academic settings may serve as an impediment to successful academic identity development. Conversely, particular stages of academic identity development may also lead to an increase in positive academic emotions, while others lead to a decrease in positive academic emotions. The current study sought to determine the role academic emotions play for African American students using the

Achievement Emotions Questionnaire (Pekrun, Goetz, Titz, & Perry, 2002).

Research Aims

The current study was an exploratory study, and as such, there were no research hypotheses, but for the purposes of the current paper, the following research questions were explored:

RQ1: How does communalism in their educational setting (Historically Black College/University) impact the academic achievement of high achieving African American students.

RQ1a: Are high achieving African American students high in communalism?

RQ1b: Do high achieving African American students attending HBCUs experience communalism in their educational environment?

RQ2: In what stage of academic identity are high achieving African American students?

RQ3: Are high achieving African American students high in need for cognition?

RQ3a: Is there a relationship between need for cognition and academic identity?

RQ4: How do academic emotions impact high achieving African Americans students' experiences in college?

RQ4a: Is there a relationship between academic emotions and academic identity?

Methods

This exploratory study utilized a mixed methods approach to collect and analyze data in order to determine the impact of communalism, academic identity, need for cognition, and academic emotions has on the academic achievement of African Americans. Quantitative data was collected using surveys. The qualitative data was collected via semi- structured individual interviews. Qualitative and quantitative data was collected and analyzed separately.

Participants

Participants were recruited from a historically Black university on the East Coast. This current study explored the experiences of high achieving African American students; high achievers were defined as students with a grade point average of 3.0 and above. A total of 235 students were recruited from Introductory to Psychology courses, as well as Statistics I courses in order to ensure a range of disciplines were represented in the study. While the majority of the participants were freshmen, all classes were represented in the study (see Table A below). A power analysis showed that 200 participants were needed for .80 power and a medium effect size; however, due to missing data and excluding students who did not identify as African American, 199 students' data were retained for analysis. Participants were offered extra credit for completing the questionnaires (at the discretion of their professors); 16 students who completed the one-on-one interviews were paid \$20. The participant demographics can be found in Table A.

While the focus of the current study was the experience of high achieving African American students, data from low achievers (a GPA below 3.0) were included in the analysis in order to better interpret the outcomes of high achieving students. In other words, in order to understand how the variables under study impacted high achieving students, high achieving students had to be compared to low achieving students.

Table 1
Descriptive Data

Characteristic	Frequency	Percent
Gender		
Male	42	21.1
Female	158	78.4
Missing	1	.5
Classification		
Freshman	108	54.3
Sophomore	67	33.7

Junior	16	8.0
Senior	8	4.0
Parent's Income		
Working class	16	8.0
Lower middle class	26	13.1
Middle class	88	44.2
Upper middle class	64	32.2
Upper class	4	2.0
Missing	1	.5
Household		
Two parents	125	62.8
One parent	45	22.6
Two grandparents	2	1.0
Combination	21	10.6
Missing	6	3.0

Materials and Procedures

A mixed methods approach was used to collect qualitative and quantitative data from the participants.

Surveys. Students were recruited from several Introduction to Psychology as well as Statistics I courses. Students completed an Informed Consent Form, then several measures, as detailed below. The survey portion of the study took no longer than thirty minutes to complete. The survey topics include communalism, need for cognition, academic emotions, and academic identity. Grade point average, a measure of Black identity and demographic items were also included.

While it can be assumed that students attending an HBCU are high in Black identity, it is important to avoid supposition, and due to the possible correlation between Black identity and many of the aforementioned variables, Black identity was measured. To measure Black identity, participants were given the short form of the Multidimensional Inventory of Black Identity (MIBI-S; Martin, Wout, Nguyen, Sellers, & Gonzalez, 2008). For the purpose of the current

study, the subscales Racial Centrality, how central race is to overall identity (4 items; $\alpha = .72$) and Private Regard, how African Americans regard other African Americans and African American culture (4 items; $\alpha = .84$; Sellers, Smith, Shelton, Rowley, & Chavous, 1997) were used. Responses are on a 7-point Likert-type rating scale (1 = strongly disagree to 7 = strongly agree) indicating the degree to which they agreed with each statement. Boykin, Jagers, Ellison, and Albury's (1997) Communalism Scale is a 32-item survey that measures how connected an individual feels to his or her family, community, and other environments (Belgrave & Allison, 2014). Responses are on a 6-point Likert-type scale from 1 = completely false to 6 = completely true.

Academic Identity was measured using Was and Isaacson's (2008) Academic Identity Measure (AIM). The AIM is a 40-item scale that measures what academic identity status students report, with subscales for Identity Diffusion, Identity Foreclosure, Identity Moratorium, and Identity Achievement. Need for Cognition was measured using the Need for Cognition Scale (revised version; Cacioppo, Petty, and Kao, 1984; Bost 2007). This 18-item scale allowed participants to rate their desire for effortful thinking with a 5-point Likert-type response scale ranging from 1 = extremely characteristic to 5 = extremely uncharacteristic (Cacioppo, Petty, Feinstein, & Jarvis, 1996). Academic emotions were measured using Pekrum, Goetz, Titz, and Perry's (2002) Achievement Emotions Questionnaire. This questionnaire was designed to understand the emotions students feel in academic settings. For the scope of the current study, only the subscale Learning-Related Emotions was used. Finally, grade point average served as the measure of academic achievement and was self-reported (Cassady, 2001).

Semi-structured Interviews. One-on-one semi-structured interviews were administered to 16 participants. Only 14 interviews were used due to one participant

identifying as White Canadian and another having a grade point average of below 3.0. Interviews took no longer than one hour. The semi-structured interview design will be a standardized list of questions that allowed for additional probing where deemed necessary. Questions addressed demographic information, the practice of communalism (which included the importance of peer, professor, and parental support (e.g., *Is your relationship with your peers important to you? Why or why not?*), academic identity (e.g., *When you don't do well in school, what is your response?*), academic emotions (e.g., *How do you feel about learning? Can you tell me why you feel this way, providing examples?*), and need for cognition (e.g., *Why are you in school, for instance, do you believe it is the best way to get a job, or do you enjoy acquiring knowledge for the sake of it? Please explain.*). Participants were assured that all data was confidential. After participation in both the qualitative and quantitative portions of the study, participants were thanked for their time.

Results

Data Analysis

Analysis of quantitative data. The survey data was analyzed using IBM-SPSS Version 24 software. Students were given the Multidimensional Inventory of Black Identity (Sellers, Smith, Shelton, Rowley, & Chavous, 1998; Martin, Wout, Nguyen, Sellers & Gonzalez, 2008) to ensure that students were high in Black identity. Participants had high mean scores across the subscales, Centrality ($M = 23.48$, $SD = 3.78$) and Private Regard ($M = 20.09$, $SD = 1.63$) respectively. Cronbach's alphas were done to determine the reliability of each scale for the sample of African American students. The Need for Cognition (Caccioppo & Petty, 1982; Bost, 2007) measure consisted of 18 items ($\alpha = .845$). The Academic Emotions Learning-Related Emotions (Pekrum, Goetz, Titz, & Perry, 2002) subscale consisted of 8 items ($\alpha = .687$). There

were four subscales on the Academic Identity Measure (Was & Isaacson, 2008). The Foreclosure subscale had 10 items ($\alpha = .218$); Diffusion had 10 items ($\alpha = .727$); Moratorium had 10 items ($\alpha = .701$); Achieved had 10 items ($\alpha = .574$). Lastly, the Communalism scale (Boykin, Jagers, Elison & Albury (1997) had 32 items ($\alpha = .760$).

Two-tailed Pearson's r correlational analyses were done to determine the relationships between the variables under study. Of particular interest were the relationships between academic performance, operationally defined as grade point average, and the other variables, as well as the relationships between academic identity, need for cognition, and academic emotions. Grade point average was significantly correlated with learning-related emotions, $r = .287$, $p < .001$; as grade point average increased, positive learning-related emotions increased. Grade point average was significantly correlated with academic identity diffusion, $r = .353$, $p < .001$; as grade point average increased, academic identity diffusion increased. Grade point average was significantly correlated with academic identity moratorium, $r = -.273$, $p < .001$, as grade point average increased, academic identity moratorium decreased. Finally, grade point average was significantly correlated with academic identity achievement, $r = .157$, $p < .05$, as grade point average increased, academic identity achievement increased. Grade point average was not significantly correlated with need for cognition, academic identity foreclosure, or communalism.

While there was no direct correlation between grade point average and need for cognition, there were significant correlations between need for cognition, academic emotions ($r = .469$, $p < .001$), academic identity foreclosure ($r = .264$, $p < .001$), academic identity diffusion ($r = .441$, $p < .001$), academic identity moratorium ($r = -.337$, $p < .001$), academic identity achieved ($r = .293$, $p < .001$), and communalism ($r = .231$, $p < .001$). As need for cognition increased, there was an increase in the subsequent variables, except for academic identity moratorium,

which showed a decrease as need for cognition increased. There were also significant correlations between academic emotions and the four subscales of academic identity: foreclosure ($r = .183, p < .001$), diffusion ($r = .500, p < .001$), moratorium ($r = -.458, p < .001$) and achieved ($r = .411, p < .001$); in addition to communalism ($r = .159, p < .05$). A complete table of correlations can be found below in Table 2.

Table 2
Pearson's r Correlations

Variable	GPA	Communalism	Academic Identity Foreclosure	Academic Identity Diffusion	Academic Identity Moratorium	Academic Identity Achievement	Need for Cognition	Academic Emotions
<u>GPA</u>								
Pearson's r	n.s.	n.s.	n.s.	0.353	-0.273	0.157	n.s.	0.287
p				<.001	<.001	<.001		<.001
<u>Communalism</u>								
Pearson's r	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	0.231	0.159
p							<.001	<.05
<u>Academic Identity Foreclosure</u>								
Pearson's r	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.	0.264	0.183
p							<.001	<.001
<u>Academic Identity Diffusion</u>								
Pearson's r	0.353	n.s.	n.s.	n.s.	n.s.	n.s.	0.441	0.5
p	<.001						<.001	<.001
<u>Academic Identity Moratorium</u>								
Pearson's r	-0.273	n.s.	n.s.	n.s.	n.s.	n.s.	-0.337	-0.458
p	<.001						<.001	<.001
<u>Academic Identity Achievement</u>								
Pearson's r	0.157	n.s.	n.s.	n.s.	n.s.	n.s.	0.293	0.411
p	<.05						<.001	<.001
<u>Need for Cognition</u>								
Pearson's r	n.s.	0.231	0.264	0.441	-0.337	0.293	n.s.	n.s.
p		<.001	<.001	<.001	<.001	<.001		
<u>Academic Emotions</u>								

Pearson's r	0.287	0.159	0.183	0.5	-0.458	0.411	n.s.	n.s.
p	<0.001	<.05	<.001.	<.001	<.001	<.001		

n.s. = not significant

A multiple regression analysis was used to test if the social and cognitive variables under study predicted grade point average. The results of the regression indicated the one predictor explained 28.8% of the variance ($R^2=.288$, $F(7,165) = 4.53$, $p < .001$). Academic identity diffusion significantly predicted grade point average ($\beta = .288$, $p = .018$).

An analysis of variance was done to further determine any group differences between high and low achievers. A main effect was found for communalism $F(1, 174) = 3.92$, $p = .049$. High achievers were higher in communalism ($M = 138.90$, $SD = 16.56$) than low achievers ($M = 133.89$, $SD = 13.73$). Regarding academic identity, the finding approached statistical significance when grade point average served as the independent variable and academic identity foreclosure served as the dependent variable, $F(1, 194) = 3.10$, $p = .080$. High achievers reported higher levels of academic identity foreclosure ($M = 37.00$, $SD = 3.33$) than low achievers ($M = 36.10$, $SD = 3.59$). A main effect of academic identity diffusion was found, $F(1,191) = 19.30$, $p = .000$. High achievers reported higher scores on identity diffusion ($M = 44.21$, $SD = 4.84$) than low achievers ($M = 40.53$, $SD = 6.68$). A main effect of academic identity moratorium was also found, $F(1,194) = 7.877$, $p = .006$. High achievers reported lower scores on identity moratorium ($M = 31.78$, $SD = 6.22$) than low achievers ($M = 34.40$, $SD = 6.44$). Finally, the difference between high and low achievers for academic identity achieved also approached statistical significance, $F(1, 193) = 3.69$, $p = .056$. High achievers reported higher scores in identity achieved ($M = 39.68$, $SD = 5.10$) than lower achievers ($M = 37.94$, $SD = 7.46$). As the correlational analysis would suggest, there was no significant finding when grade point average served as the independent variable and need for cognition was the dependent variable. There was; however, a statistically significant difference between high and low achievers on learning-

related emotions, $F(1,195) = 15.14$, $p = .000$. High achievers reported more positive learning-related emotions ($M = 30.38$, $SD = 5.68$) than low achievers ($M = 27.11$, $SD = 5.68$). The statistically significant findings can be found in Table 3.

Table 3
Analysis of Variance

Variable	<i>F</i>	<i>p</i>	<i>M</i>	<i>SD</i>
<u>Communalism</u>	3.92	0.049		
High Achievers			138.90	16.56
Low Achievers			133.89	13.73
<u>Academic Identity</u>				
<u>Foreclosure</u>	3.1	0.8		
High Achievers			37.00	3.33
Low Achievers			36.10	3.59
<u>Academic Identity</u>				
<u>Diffusion</u>	19.3	.000		
High Achievers			44.21	4.84
Low Achievers			40.53	6.68
<u>Academic Identity</u>				
<u>Moratorium</u>	7.877	0.006		
High Achievers			31.78	6.22
Low Achievers			34.40	6.44
<u>Academic Identity</u>				
<u>Achievement</u>	3.69	0.056		
High Achievers			39.68	5.1
Low Achievers			37.94	7.46
<u>Academic Emotions</u>	15.14	.000		
High Achievers			30.38	5.68
Low Achievers			27.11	5.68

Analysis of qualitative data. The semi-structured interviews were administered one-on-one with a trained researcher and the student participant. Interviews were recorded. Audio recordings of all interviews were transcribed and an analysis was performed using NVIVO11 Qualitative Research Software. Through qualitative analysis, responses were not predetermined, rather responses were student generated. Of the 16 interviews that took place, two were disregarded because one of the participants did not identify as African American and the other did not identify as a high achiever. Participants were asked questions very similar to those presented in

the quantitative portion of the study, but were given the ability to answer in their own words and elaborate on those answers. Additional questions were asked to explore the relationship participants had with their parents to determine if these relationships impacted participants' academic performance and choices.

Qualitative data collected regarding communalism was interesting in that students reported working with peers as important in the classroom, and that they were given these experiences in their classes. However, many students reported not enjoying these experiences. In addition to these negative reports, students felt that the support of their faculty was much more important than the support of their peers in their academic environments. Students were more likely to discuss their course progress and career plans with their faculty, rather than their classmates. Many of the students interviewed also were likely to see a separation between their classmates and who they considered friends. When reporting about their relationships and need for support from family and friends, students' responses were conceptually in line with communalism. However, students seemed to perceive their faculty, university community and others in the African American community as contacts with whom to network. In this way, students' responses were conceptually in line with social capital, the idea that one is able to advance academically (and/or in career) through having a number of influential associates that can supply needed resources, for example knowledge or finances.

Qualitative data was also collected to understand the impact that parental praise had on students' academic performance. Students reported that they received and enjoyed parental praise, which was primarily associated with doing well in school, for example, passing an examination or getting a high grade in a course, but students were split on whether this praise impacted their academic performance. In the cases that parental praise impacted academic

performance, students associated praise with receiving gifts for their accomplishments, and sought to continue to receive gifts. Students were largely unable to report the praise they received from parents over time; participants were most likely to report most recent incidents of praise.

Participants were asked several questions about their choice of academic major, the courses in their major and their future plans. While the quantitative data suggested that high achieving students experienced academic identity diffusion, the qualitative data suggested otherwise. Academic identity diffusion would suggest that students had given up on finding suitable careers, but the qualitative data suggested that was not the case. The students' reports better suggested a state of academic identity moratorium, a state of searching for an academic identity. Many students reported having changed their majors in the past and still deciding between two or more careers, but no high achieving students reported that they had given up on finding a major or career she felt was right for her. Students also reported having a specific career prepared, which would suggest academic identity achieved.

When discussing need for cognition, the participants' responses supported both having a need for cognition, learning for the enjoyment of doing so, but also feeling like college enabled them to get the job they needed for their future. Students reported enjoying challenges, but also enjoying courses that were interesting and not rigorous as a break from their more challenging courses.

Finally, when reporting academic emotions, the qualitative data supported the quantitative data with students rarely reporting feeling any negative emotions associated with their academics. For those students who had reported experiencing short term failures, they reported a quick rebound from negative emotions with a plan for academic recovery. Students

were more likely to report boredom in some courses (usually non-major courses), but no long term negative emotions.

Discussion

Much of the research regarding African American students' academic achievement discusses the achievement gap between African Americans and Whites which tends to compare African American students to White students (Rothstein, 2004; Haycock, 2001; Bradley & Bradley, 1977). This comparison helps to normalize White culture and experience while devaluing African Americans' experiences in the process. Further, many of the studies that examine the experiences of African American students do so with students who attend Predominantly White Institutions (PWIs; Fleming, 1985; Allen, 1992; Cokley, 2000). These institutions put the data collected from African American students in a particular context, one in which White culture and experience predominates and impacts the experiences of African American students. While it can be argued that African Americans are always in an environment impacted at the least and dictated at the most by White culture and experiences, this is not always the case, especially for African Americans who attend HBCUs (Allen 1992). HBCUs have long been considered an oasis of Black academic culture, a culture in which African American students are more likely to populate and succeed compared to their counterparts attending PWIs (Kim & Conrad, 2006). Much more research needs to focus on the experiences of African American students while not comparing them to White students in environments where African American students are more likely to succeed. This manner of research is likely to give researchers, educators, and policymakers a more complete narrative of the experiences of successful African American students. As the current study was an exploratory study with no hypotheses, several analyses of quantitative and qualitative data were done to understand how

the need for cognition, academic identity, academic emotions, and communalism are related to grade point average, the measure of academic achievement for the purposes of the current study.

Research Question 1: Communalism

The findings regarding communalism showed that there was no statistically significant correlational relationship between communalism and academic achievement; however, the ANOVA suggested that high achievers scored statistically significantly higher on communalism than low achievers, albeit with a small main effect. Because communalism was not manipulated, these findings suggest a relationship between communalism and academic achievement, but no cause and effect between the variables. These findings suggest that further research must be done to understand the relationship between academic achievement and communalism. Past research suggests that African Americans are high in communalism as a residual from African culture (Cunningham & Boykin, 2004), but this does not explain the difference between high and low academic achievers. The work by W.E.B. DuBois (1903) suggests, though perhaps tenuously, that high achievers are given the message that they are responsible for leading (and perhaps healing) the African American community. If high achieving students are given this message by their family, friends, and community, high levels of communalism in high achievers may be explained. However, due to the higher numbers of freshmen and high achievers in the sample of this study, further research must be done to determine if these findings can be replicated, especially with students with more experience in a collegiate setting, and in a sample in which high and low achievers are more fairly represented.

Further research must also be done to understand the impact of parental praise on African American students' achievement. While students showed an appreciation for parental praise, participants were not clear regarding whether they had received process praise or person praise.

Students were largely unable to explain praise that had been given without first being given examples. A cross-sectional study would perhaps be more appropriate for collecting such data.

Research Question 2: Academic Identity

The data regarding academic identity is clearly impacted by the overwhelming number of freshmen in the study. The Academic Identity Measure (AIM; Was and Isaacson, 2008) is divided into stages. Though not always the case, these stages are likely to correspond with a student's time in college, with academic identity achieved more likely to correspond to older students who have taken more courses in their chosen major. Because more freshmen were sampled in the current study, conceivably less students would be likely to identify as achieved. In addition to this, the items associated with academic identity diffusion, which suggest a student has given up on finding an academic identity could also indicate that a student has not yet begun to search for her academic identity. Due to the structure of the university curriculum, freshmen are more likely to have not declared a major (Gordon, 1995), and when they have, are less likely than any other class to have taken any major courses, and may feel that their academic experience is not yet important. Academic identity diffusion accounted for some variability in academic achievement, which is intuitive. This finding suggests that African American students are likely to navigate academic identity in a theoretically consistent manner. However, further research must demonstrate this to be the case across classes.

Research Question 3: Need for Cognition

The work done by Cacciopo & Petty (1982) would suggest that high achievers are high in need for cognition, while speculation regarding the African American population posits that a desire for knowledge is not necessarily related to academic performance and achievement, especially for African American students who are more concerned with finding a job to

financially support themselves and their families (Belgrave & Allison, 2014). The findings of the current study would suggest the latter is more likely for African American students attending an HBCU. While the need for cognition was related to academic identity, academic emotions, and communalism, it had no relationship with grade point average. Students' qualitative responses also suggested that while they enjoyed learning, they were also concerned about finding a lucrative career. Though these findings suggest need for cognition is not important for the success of African American students, because the sample used in this study due to recruitment limitations were mostly freshman with a majority of high achievers, further research must be done with students who are more established, and are a better representation of both high and low achievers to really understand how high achievers' experiences of need for cognition are distinct from their low achieving peers.

Research Question 4: Academic Emotions

Academic emotions were found to be related to every variable examined in the current study in a theoretically sound manner. High achievers reported more positive learning-related emotion than low achievers, which suggests that along with the existing evidence that negative academic emotions can help to explain why an oppressive educational system is likely to lead to more low achieving African Americans (Steele & Aronson, 1995), positive affect is also related to academic success for African American students. Further research must be done, but these findings may further support the use of relational style learning, if, as according to Ibarra (2001) and Tomes (2008) African Americans are more likely to use relational styles of learning, which include affect (Bell, 1994). Once again, much research has shown how various negative factors can lead to learning and achievement deficits for African American students, it is now time to add a focus on what enables high achievers to succeed and how these methods can be used to

improve achievement for all African American students. In order to support and foster high achievement, curriculum that addresses learning-related emotions is curriculum that will lead to more high achieving African American students.

What must also be further examined are the reliabilities for both academic identity foreclosure and achieved. A factor analysis, though beyond the scope of the current study, can assist in determining if the factors (stages of academic identity) consist of the same items for an African American population as for the population on which the scale was originally tested.

Limitations

It is difficult to understand how any variables have a long-term impact on academic performance, especially when the goal is to improve academic performance without collecting data over an appropriate time period. The current study was able to discern the relationships between various social and cognitive variables and academic performance for high achieving African American students, but to understand how high achieving students develop over time or how low achieving African American students can be made to become high achievers both longitudinal and experimental studies would be most efficient. The current study was an exploratory study, and was just a first step in understanding the experiences of high achieving African American students.

While a concerted effort was put forth to recruit more than 200 high achieving African American students, a limitation to this study was the inability to recruit the desired number of participants. In addition to the inability to recruit as many students as desired, a limitation to the interpretation of the results is due to the lack of male participants in the sample, as well as a preponderance of freshman and sophomore students. These limitations are to be expected when current university populations are becoming predominantly female, especially at HBCUs. In

addition to a majority of female participants, it is also to be expected that students who are recruited from general education courses or electives are more likely to be freshmen and because high status students are more likely to enroll in many more major specific higher-level courses. As such, while this study provided novel information about an African American sample, unfortunately, that sample was overwhelmingly female and freshmen. A more representative sample of African American students is needed. While this study focused on the experiences of high achieving African American students, inferential statistics demand comparison groups to accurately interpret data. The recruitment goal was 200 high achievers as well as 200 low achievers, and recruitment fell short. However, the number of findings suggest that there were enough participants to begin a narrative regarding the experiences of high achieving African American students, but a larger sample is needed for future research.

Future Research

The current study sought to understand how cognitive and social variables impact the academic performance of African American high achievers. Much discussion on the topic is led by qualitative research as well as heavy speculation regarding how African American students view academic endeavors and goals. Much of the past empirical research has focused on African American students' academic deficits. While the current study was novel in validating cognitive measures with African American students, to have a more thorough understanding of the academic identity of African American students, a longitudinal study (or series of studies) would be more appropriate. Longitudinal studies that range from the entrance of primary school to the college graduation would not only answer questions regarding under what conditions academic identity develops for high achieving African American students (as opposed to the current research that examines the conditions under which deficits are allowed to flourish), but it can

also demystify what factors lead high achieving African American students to enter graduate programs.

Future research should explore the experiences of African American students representing various demographics, specifically social economic status, as well as the institutions students attend, whether they be predominantly Black, predominantly White, minority serving, etc., at both the high school and college levels. Because African American students are not a monolith, even when focusing on high achievers, it is important to glean as much information as possible to understand how to create as many high achieving African American students as possible. In as such, while qualitative data helps to provide a voice to research that can at times be perceived as cold and detached from actual human experience, experimental quantitative data enables researchers to determine causation. When trying to understand educational and career achievement, understanding cause and effect becomes paramount. Future research examining the academic endeavors of African American students must be quantitative research guided by the qualitative experiences of these students.

While beyond the scope of the current study, future research should focus on validating the measures in this particular study, as well as other measures that focus on academic and cognitive development and processes with African American samples. While the current study was able to demonstrate that the Academic Emotions Questionnaire Learning Related Emotions Subscale did not have internal reliability for the sample of African American students, further measures were unable to be done to determine what may have led to low internal reliability of this measure for these students. Future studies should employ factor analyses on measures of cognitive and academic processes to determine if more accurate measures must and are able to be created for African American students.

Conclusion

The current exploratory study helped to determine how the social factor of communalism and cognitive factors of academic identity, need for cognition, and academic emotions were related to academic achievement as measured by grade point average of high achieving African American students. Very little previous research has utilized quantitative data to explain the experiences of high achieving African American students. As previously mentioned, when quantitative data has been collected, in many cases, if not the majority of these cases, the data has been collected to understand the experiences of low achieving African American students. While it is important to know what variables hinder the success of African American students, it is equally important to know what variables create high achievers. The current study has taken steps to complete this narrative, and has laid the groundwork for future research to acknowledge the successes of African American students and to improve the outcomes of their less fortunate counterparts.

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