EXPLORATORY FACTOR ANALYSIS OF AFRICAN SELF-CONSCIOUSNESS SCALE SCORES

by

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ABSTRACT OF THE THESIS

Exploratory Factor Analysis of African Self-Consciousness Scale Scores

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The current study is an exploratory factor analysis of the African Self-Consciousness Scale (ASCS), a 42-item self-report measure of *Afrocentricity*, or the degree to which African American individuals espouse African-centered cultural, social, and political identities. Previous research has produced inconsistent results regarding the latent dimensionality and psychometric properties of the ASCS. With a sample of 348 African Americans, the current study conducts a methodologically rigorous exploratory factor analysis of ASCS scores. The study also examines convergent validity of the measure as compared to a measure of African Americans' endorsements of negative stereotypes of Blacks. Factor analysis produced strong support for a two-factor model of the ASCS. Further support for the validity of the ASCS was found when the factor assessing non-Afrocentric or anti-Afrocentric beliefs correlated significantly with the measure of stereotypes. This evidence strongly suggests that the ASCS is not a unidimensional measure. Implications of these findings for the use of the ASCS and recommendations for further investigation are discussed.

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I. Introduction

The use of measures of racial and cultural variables in psychology has expanded considerably in recent decades, particularly with respect to the study of African Americans (Marks, Settles, Cook, Morgan, & Sellers, 2004). This research has often focused on race, confining the study of African Americans to constructs measuring racism and differences from mainstream White/European culture (Sellers, Smith, Shelton, Rowley, & Chavous, 1998). However, an exclusive focus on racial oppression obscures other phenomena that may be equally important to research on African American individuals, such as the role of culture and ethnicity, which incorporates values and worldviews as well as experiences of oppression (Cokley & Williams, 2005). From this perspective, *Afrocentricity*, or the degree to which an individual of African descent espouses African-centered cultural, social, and political identities, offers one possible framework for the study of African American culture and ethnicity.

The Cross Racial Identity Scale (CRIS; Cross & Vandiver, 2001) is one of the most widely used instruments for the study of African Americans' beliefs and experiences, The Cross model theorizes various stages of the development of Black racial identity: Pre-Encounter, Encounter, Immersion-Emersion, and Internalization. These stages consider issues of racial self-awareness, attitudes towards the Black community, experiences of and reactions to racism, and political/ideological orientations (Worrell, Cross, & Vandiver, 2001). As such, the CRIS is characteristic of a race-focused approach to the study of African Americans. While the most recently revised CRIS includes a measure of Afrocentric orientation, the Afrocentric items on the CRIS are

limited in scope and number and do not address multiple areas of African American life and specific behaviors such as child-rearing or African-centered education.

Baldwin's (1984) African Self-Consciousness construct explicitly seeks to discern the role and presence of African cultural traditions and values in Black identity. According to Baldwin, African Self-Consciousness is comprised of the following competency dimensions: (1) awareness of one's African-derived identity and cultural heritage; (2) recognition of African American collective survival priorities; (3) participation in the self-knowledge, affirmation and development of people of African descent; and (4) recognition of oppression (Baldwin, 1981; Baldwin & Bell, 1985). Baldwin's theory proposes that African Self-Consciousness plays a vital role in all aspects of African American psychological functioning and behavior because it relates broadly to multiple areas of African American life (Baldwin & Bell, 1985). Thus Afrocentricity, as measured by the African Self-Consciousness Scale (ASCS), should be associated with positive individual behaviors and relational behaviors, as well as healthy psychological functioning (Baldwin, 1981, 1984; Bell, Bouie, & Baldwin, 1990; Jackson & Sears, 1992; Kambon, 1998; Utsey, Adams, & Bolden, 2000).

Baldwin and Bell (1985) developed a list of 130 items intended to measure African Self-Consciousness in six areas of African American life: education, family, religion, cultural activities, interpersonal relations, and political orientations. A panel of five psychologists with expertise in Afrocentricity was asked to rate items for content validity based on relevance to the four competency dimensions of African Self-Consciousness. The final list included the 42 items rated most relevant to African Self-Consciousness and agreed upon by a majority of judges. Using this scale, internal

reliability alpha coefficients have been produced ranging from .61 to .89 (Baldwin & Bell, 1985; Dixon & Azibo, 1998; Stokes, Murray, Peacock, & Kaiser, 1994). Also, in a study of 109 African American college students, Baldwin and Bell (1985) calculated a test-retest reliability estimate of .90 over a six-week period. Convergent validity was evaluated by comparing ASCS scores to those obtained from the Black Personality Questionnaire (BPQ), an instrument designed to assess attitudes and beliefs about Black Consciousness (Baldwin & Bell, 1985; Williams, 1981). The BPQ comprises a series of positive and negative statements about Black political identity and cultural values, whereby high scores on the BPQ reflect high levels of Black consciousness. ASCS scores were found to correlate positively with BPQ scores.

However, further evidence for the convergent validity of the scale has been inconsistent. Brookins (1994) conducted a study of 171 male and female African American college students attending a predominantly White university in the southeastern United States and compared ASCS scores to those obtained from the Belief System Analysis Scale (BSAS), designed to measure the holistic, non-materialistic, and communalistic orientations associated with Afrocentricity. Total ASCS scores were not significantly correlated to BSAS scores. This lack of association could be explained by differing emphases in the scales; whereas the BSAS appears to focus on race-neutral and value-oriented aspects of Afrocentricity, the ASCS may examine more race-specific and sociopolitical aspects (Brookins, 1994).

There has been evidence for the external validity of the scale as it relates to sociobehavioral, stress, and health variables. Baldwin, Brown, and Rackley (1990) theorized that African Self-Consciousness would be associated with pro-Black

background experiences such as parental involvement with Black cultural organizations, as well as with pro-Black or self-affirming behaviors among African Americans. The authors conducted a study of 219 African American male and female college students attending Florida Agricultural and Mechanical University in Tallahassee, Florida. Consistent with theory, the ASCS scores of participants were significantly correlated with parental membership in Black organizations, exposure to Black Studies courses, and prior experiences with racism, leading the researchers to infer the influence of home and school environments on the development and transmission of Afrocentric values (Baldwin, Brown, & Rackley, 1990).

Thompson and Chambers (2000) hypothesized that ASCS scores would be positively correlated with health behaviors such as physical activity and attention to nutrition due to Baldwin's (1984) emphasis on group survival as a component of African Self-Consciousness. Eighty students enrolled at a historically African American university in the southeastern United States completed the ASCS along with two measures of health-related behaviors and attitudes. ASC positively correlated with health responsibility, interpersonal relation, and spiritual growth, all of which may relate to African Self-Consciousness insofar as they represent particular African values of communalism, spirituality, and collective survival (Thompson & Chambers, 2000). These correlations indicate that higher levels of African Self-Consciousness may be positively related to adaptive health behaviors, providing further evidence for potential behavioral correlates of the construct.

Another study consisting of a sample of 701 male and female African American college students at eight historically Black colleges explored the relationship of African

Self Consciousness to perceived daily stress (Chambers, Kambon, Birdsong, Brown, Dixon, & Robbins-Brinson, 1998). Consistent with theory stating that high levels of African Self-Consciousness would be positively associated with academic performance, the researchers did find positive correlations between ASCS scores and Grade Point Average (GPA) for males and females, respectively, as well as a positive correlation between ASCS scores and self-esteem for males. The researchers conducted hierarchical cluster analysis of the data, which produced three distinct group profiles. The most highly functioning of these had high Africentric identity, self-esteem, and anger control, as well as the lowest levels of reported stress. Contrary to findings from the hierarchical cluster analysis, ASCS scores were not significantly correlated with mental health scores, such as those measuring depression and anxiety. This discrepancy suggests that scores on the ASCS may be associated in a complex fashion with mental health, which correlations may be unable to detect.

Pierre and Mahalik (2005) theorized that ASCS scores would correlate positively with measures of self-esteem and negatively with measures of psychological distress in African American men. A sample of 130 African American men recruited from two historically African American universities in the southeastern United States, one predominantly White northeastern university, and two urban African American community centers in a northeastern city completed the ASCS, along with the Coopersmith Self-Esteem Inventory and the Global Severity Index. The researchers used two of four ASCS subscales based upon a factor analysis conducted by Stokes and colleagues (1994). These subscales were: “Self-Reinforcement Against Racism”, which includes such items as “It is not within the best interest of Blacks to depend on Whites for

anything, no matter how religious and decent [Whites] purport to be"; and "Personal Identification With The Group", which included such items as "Regardless of their interest, educational background, and social achievements, I would prefer to associate with Black people than non-Blacks". As predicted, scores from the "Self-Reinforcement Against Racism" subscale were found to correlate positively with self-esteem and negatively with psychological distress. However, contrary to expectation, high scores on the "Personal Identification With The Group" subscale correlated negatively with self-esteem for African American males. These results imply the possibility of differential relationships of potential underlying dimensions of the ASC construct with mental health outcomes, which may account for the aforementioned conflicting correlation findings. Such relationships may be obscured by the use of a unidimensional measure.

Some studies have assessed the dimensionality of the African Self-Consciousness Scale. Stokes and colleagues (1994) noted that there is a paucity of evidence about the dimensionality of ASCS scores, despite the fact that racial and ethnic identity is increasingly seen as a multidimensional construct (Thompson 1992). To identify its essential components and their interrelationships, Stokes and colleagues (1994) conducted an exploratory factor analysis on ASCS scores gathered from 147 male and female African Americans from three Southern California cities (San Bernardino, Riverside, and Rialto). Participants were predominantly 18-45 years old, but ranged in age from 13-70 years. Approximately half of the sample had attained a college education. Of the total sample, nearly a quarter (24%) earned between $5,000 and $9,999, followed by 17% earning between $10,000 and $19,999, 26% between $20,000 and $39,999, and the remaining 20% over $40,000. Individuals aged 13-17 reported no

income, and constituted 13% of the total sample. Principal axis factor analysis was conducted, and scree plots were used to determine which factors should be retained. Researchers assumed that factors of the scale were interrelated, consistent with Baldwin's proposition that African Self-Consciousness affects all areas of African American psychological functioning (Baldwin 1984; Stokes et al. 1994). Consequently, an oblique factor rotation was used, producing a four-factor solution which was interpreted as concordant with Baldwin and Bell's (1985) original conception. The authors labeled the factors as follows: Personal Identification With The Group, Self-Reinforcement Against Racism, Racial and Cultural Awareness, and Value for African Culture. Internal reliability estimates for each factored subscale were moderate, ranging from .61 to .77. Stokes and colleagues (1994) indicated that ten items should be deleted because they did not contribute to the internal consistency of the scale.

Myers and Thompson (1994) conducted a factor analysis of the ASCS based on a sample of 150 African American men and women in a large Midwestern metropolitan area. The sample was collected in a variety of settings outside of the laboratory, including such locations as book stores, homes, and public transportation stops. Mean age for the sample was 30, and all participants were 18 years of age or older. Median income for the total sample was estimated at $30,000; however, approximately one third of the sample did not report incomes. Exploratory factor analysis with a promax rotation and utilizing the retention method of including factors with eigenvalues greater than one produced a seven-factor solution. Items for each factor were retained if their semi-partial correlations were equal to or greater than .30. Specific items retained or rejected were not identified. Researchers claimed that four of the factors replicated Baldwin and Bell's

(1985) four dimensions of African Self-Consciousness. The additional three factors were labeled as followed: group self-concept; sociocultural/educational aspects of Africentric identity; and Africentric political orientation. The seven factors accounted for 78 percent of variance in scores on the ASCS, but internal consistency estimates were not reported.

Dixon and Azibo (1998) conducted a principal components factor analysis using varimax rotation on ASCS scores obtained from 101 poly-addicted African American males. The mean and median age of the sample was 32 years. Approximately 74% of participants in the total sample were either unemployed, held irregular part-time employment, or performed odd jobs. These men were recruited from a larger study of addiction among African American men seeking emergency services at a homeless shelter in a major Eastern seaboard city. The sample is notable for its divergence from the predominantly college student-based populations used in the aforementioned studies of the ASCS. Two factors were retained following a scree test, each of which contained three or more items loading above the cutoff of .50. The two retained factors were labeled "Value for African-Centered Institutions" and "Relationships and Value Against Affirmative Africanity". Cronbach's alphas for each factor were .88 and .89, respectively. The researchers did not clarify why varimax rotation, typically used when factors are assumed to be uncorrelated, was used in their analysis of a scale that would most likely have correlated factors based upon Baldwin and Bell's (1985) theory of African Self-Consciousness as a construct affecting all areas of African American life. Furthermore, given the substance abusing nature of the sample, these findings cannot be seen as representative or conclusive with respect to the ASCS.

Overall, previous factor analyses of ASCS scores have suffered from multiple shortcomings. Dixon and Azibo (1998) note that a weakness of the foregoing exploratory factor analyses of the ASCS is that the number of factors identified differs for each study, ranging from two to seven. This contradicts Dixon and Azibo's (1998) own assertion that all previous analyses confirm Baldwin and Bell's theory regarding the dimensions of African Self-Consciousness. Another limitation of the foregoing studies is that they fail to use an up-to-date methodology founded upon best practices of factor analysis. Principal axis factoring followed by the use of multiple factor retention criteria is the most highly recommended method of producing an accurate and useful factor structure when examining the psychometric properties of a scale (Hayton, Allen, & Scarpello, 2004; Costello & Osborne, 2005; Henson & Roberts, 2006). Principal axis factoring is the preferred factor extraction method for finding latent variables within a given set of ordinal data. This method is superior to maximum likelihood due to the ways in which normality assumptions are violated by ordinal data, which are often non-normal and typically skewed (Conway & Huffcutt, 2003; De Bruin, 2004). Principal components analysis is also inappropriate, as it produces linear combinations of variables rather than true latent variables reflecting underlying structures of a scale (Fabrigar et al. 1999; Conway & Huffcutt, 2003). Despite its strengths, the principal axis factoring method was not consistently used in previous studies.

Furthermore, the selection of appropriate factor retention criteria is particularly important when conducting an exploratory factor analysis. While there is no single method that consistently produces perfect results, parallel analysis is currently considered the most accurate means of retaining factors (Fabrigar et al. 1999; Henson & Roberts,

2006; Zwick & Velicer, 1986). Parallel analysis compares eigenvalues extracted from sample data to those produced from randomly generated data, and retains those factors with eigenvalues greater than those generated randomly (Fabrigar, Wegener, MacCullum, & Strahan, 1999). However, researchers have noted the tendency of parallel analysis to overfactor (Hayton, Allen, & Scarpello 2004). Previous ASCS exploratory factor analyses rely on the eigenvalue-greater-than-one rule (Kaiser criterion) and, in one case, Cattell's scree test. While the Kaiser criterion is commonly used, it is widely regarded as an inaccurate factor retention criterion (e.g., Velicer & Jackson, 1990; Hakstian & Rogers, 1982). The scree test is considered to be far superior to the Kaiser criterion, and it is widely used in contemporary factor analytic studies, but it is also prone to subjectivity and ambiguity and may have a tendency to underestimate factors (Cattell, 1966; Fabrigar et al. 1999; Hayton, Allen, & Scarpello 2004).

To account for the often conflicting or confusing results of factor retention rules, multiple factor retention criteria are recommended (Henson & Roberts, 2006; Kahn, 2006). Parallel analysis and Cattell's scree test are the two factor retention methods proven to produce accurate results, and, when used in conjunction, may compensate for each other's weaknesses. In addition to these methods, Kahn (2006) suggests that in some exploratory factor analyses, factor retention decisions may be based strictly on theory as well. Thus, the fit of the factors with Baldwin's (1984) theory could also be considered when conducting a factor analysis of the ASCS. Preceding studies did not utilize all of these factor analytic methodologies, and therefore current evidence regarding the dimensionality of the ASCS remains inconclusive.

To discern the latent factor structure of the African Self-Consciousness scale and its relationship to or deviation from the original model, exploratory factor analysis is an ideal method. Rather than proceeding from *a priori* assumptions regarding the factor structure, as does confirmatory factor analysis, or assuming that combinations of existing variables account for all non-error variance, as does principal component analysis, exploratory factor analysis methods offer the greatest potential to uncover unknown or unpredicted common factors that could affect the ways in which the construct is modeled. This has the benefit of allowing for the discovery of new elements which may augment or alter the original theory. An exploratory factor analysis of the ASCS performed on a relatively large, balanced for gender, and "normal" data set with optimal factor extraction and retention rules has yet to be published, and could provide a more conclusive model for the latent dimensionality of the scale and future research.

In addition to determining the latent dimensionality and reliability of scores, the exploration of convergent validity is an important step in establishing the psychometric properties of a scale (e.g., Fisher, Tokar, & Serna 1998; Floyd & Widaman 1995). Convergent validity is a valuable psychometric property insofar as it allows for the assimilation of data into the larger body of research on a given area, as well as provides utility of the scale to researchers seeking to assess a given construct (Cronbach & Meehl, 1955). Based upon the theoretical foundations of the African Self-Consciousness Scale as a measure of positive African American cultural identity, ASCS scores and scores from any underlying dimensions derived from it should correlate positively with those of other measures assessing similar aspects of African Americans' attitudes, behaviors, and beliefs. Similarly, scores derived from the ASCS scale should exhibit significant

negative correlations with those of measures assessing negative or derogatory attitudes, behaviors, and beliefs among African Americans towards African American culture.

The convergent validity of the dimensions of the ASCS could be assessed by means of the Stereotype Scale (Kelly & Floyd, 2001). The Stereotype Scale is a measure of African Americans' negative stereotypes of Blacks in general and of Black males and Black females in particular. Scores on this scale are associated with poor individual and dyadic adjustment, in direct contrast to the theorized positive benefits of African Self-Consciousness (Kelly & Floyd, 2006; Baldwin, 1984). Given also that the ASCS theoretically produces scores that reflect positive beliefs, attitudes, and behaviors towards and about African Americans, Stereotype Scale scores should correlate negatively with one or more factors of the ASCS and provide evidence of convergent validity. Following a methodologically rigorous exploratory factor analysis, an assessment of the convergent validity of one or more factors of the scale will provide a measure of confidence in its psychometric properties and its utility for research on African Americans.

II. Method

Participants

The data were collected from a sample of 174 self-identified African American heterosexual couples involved in serious relationships lasting six months or longer. These data were derived from two separate questionnaire-based studies in 1994 and 1997 examining the relationship between racial perspectives and individual and/or relationship functioning (Kelly & Floyd 2001; Kelly 2004). The same administration procedures were used to collect both samples, although additional scales not used in the current study were administered to the second sample. Married couples accounted for 79% of the total sample. Mean number of children for the total sample was two (*M*=2.09, *SD*=1.58 for men and *M*=1.79, SD=1.49 for women). Mean years of education was 16 (*M*=15.90, *SD*=2.46 for men and *M*=15.73, *SD*= 2.52 for women), which is approximately equivalent to a bachelor's degree. Median annual income was $40,000 for men and $35,940 for women, while the means were $35,500 for men (*SD*=$45,666) and $23,600 for women (*SD*=$27,851). Mean occupational status for the sample, as defined in the Duncan Occupational Index (Duncan 1961), was 46.36 for men (*SD*=22.45) and 49.38 for women (*SD*=22.90). These scores are equivalent to the prestige status of an office manager or registered nurse.

Instruments

Afrocentricity. Afrocentricity was measured with Baldwin and Bell's (1985) African Self-Consciousness Scale, a 42-item questionnaire that measures Afrocentric-oriented values, beliefs, and attitudes in African Americans. Sample items from this scale include: "Blacks who are committed and prepared to uplift the (Black) race by any means

necessary (including violence) are more intelligent than blacks who are not this committed and prepared"; "Black children should be taught that they are African people at an early age"; and "Racial consciousness and cultural awareness based on traditional African values are necessary to the development of Black marriages and families that can contribute to the liberation and enhancement of Black people in America". Responses are anchored on an eight point scale, from 1="strongly disagree" to 8="strongly agree". Negatively worded questions are reverse-scored. The 6-week test-retest reliability estimate was .90 (Baldwin & Bell 1985), and Cronbach's alpha coefficients for the total scale have been calculated at .70 (Baldwin & Bell, 1985) and .78 (Stokes et al. 1994). In the current study, the Cronbach's alpha coefficient for the total scale was .81.

Stereotype Scale. Convergent validity was assessed using the Stereotype Scale, a 52-item self-report measure adapted by Kelly and Floyd (2001) from Allen and Hatchett's (1986) 10-item measure of Black Group Perception. The Stereotype Scale consists of items that present various stereotypes of Blacks in general as well as Black men and Black women in particular. These stereotypical statements are both positive and negative, and typically worded as follows: "Most Black people/Black men/Black women are _____." Sample adjectives include "lazy", "neglectful of their families", "community oriented", and "intelligent", the latter two being examples of items that are reverse-scored. Responses are given on a five-point Likert-type scale wherein 1="strongly agree" and 5="strongly disagree". High scores on the scale are interpreted as endorsement of more negative and fewer positive statements. Kelly and Floyd (2001) calculated internal consistency coefficients for the scale ranging from .79 to .87. Stereotype Scale scores were found to be positively correlated with pro-White attitudes

measured by Parham and Helms' (1981) Black Racial Identity Attitudes Scale (Kelly, 2004). In the current study, the Cronbach's alpha was .94 for the full scale, and for the subscales measuring stereotypes of Blacks in general, Black men, and Black women, Cronbach's alphas were .84, .86, and .84, respectively.

Procedures

For each study, the first author, a doctoral level African American researcher, and trained undergraduate African American research assistants recruited couples by flyer advertisements in public spaces or neighborhoods with large African American populations, snowball sampling, and networking with organizations that had predominantly African American membership and/or support base. A $100.00 lottery drawing was offered to participants as motivation to complete the survey. Participants completed the questionnaires in the presence of researchers at the contact site, the research office, or at their homes.

Data Analytic Plan

Exploratory factor analysis (EFA) was conducted on the data to discern the underlying factor structure of the African Self-Consciousness Scale. The relevant theoretical literature on the African Self Consciousness construct does not distinguish between genders, and thus men and women were not separated in the sample. However, to avoid cross-partner dependency effects, we used Kelly's (2004) method of dividing the sample into two equal subsamples (n=174) that each comprised half of the men and half of the women. No couples were placed together within the same subsample. One subsample was used for the initial exploratory factor analysis, and the second subsample

was used for cross-validation analyses as per Floyd and Widaman's (1995) recommendation of measuring coefficients of congruence and factor intercorrelations.

Principal axis factoring was used to extract factors, followed by parallel analysis and Cattell's scree test. Additionally, a four-factor solution was extracted to explore the possibility that Baldwin's (1984) four competency dimensions of African Self Consciousness reflect actual latent dimensions. To discover probable intercorrelated factors with theoretical meaning while still allowing for the possibility of orthogonality, oblique promax rotation was selected (Ho 2006; Costello & Osborne, 2005; Kahn, 2006). Pattern coefficient cutoffs were set at .40[1] as suggested by Kahn (2006) to ensure a coherent and pure factor structure. For purposes of clarity, only items with clean pattern and structure coefficients were used, and items loading on multiple factors were omitted. The Kaiser-Meyer-Olkin measure of sampling adequacy, the minimum acceptable level of which should exceed .50 (KMO; Kaiser, 1970), was calculated to verify sampling adequacy. Additionally, Bartlett's test of sphericity (Bartlett, 1950) was also conducted to confirm the appropriateness of the factor model.

Extracted subscales were evaluated for validity by means of the Cronbach's alpha coefficient, a common estimate of internal consistency. Scales with Cronbach's alphas with a value of less than .7 are generally considered unsatisfactory for use due to insufficient inter-item covariance (Bland & Altman, 1997; Nunnally, 1978). Convergent validity was determined by calculating correlations within the total sample (n=348) between Stereotype Scale scores, total ASCS scores, and ASCS factors.

[1] Cutoffs were originally set at a recommended minimum of .32 as per Kahn (2006). Following examination of the data, cutoffs were further raised to .40 to increase factor purity while still producing stable and interpretable factors.

III. Results

Exploratory factor analysis was performed using identical methods on the exploratory subset (n=174) and the comparison subset (n=174), and the results from both are explained concurrently here. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was calculated at .63 for the exploratory subsample and .70 for the comparison subsample. Additionally, Bartlett's test of sphericity (Bartlett, 1950) was significant for the exploratory (χ^2[861]=.002, p<.001) and comparison (χ^2[861]=.002, p<.001) subsamples, indicating that the samples were both adequate and appropriate for factor analysis. The ordinal ASCS data were input as polychoric correlation matrices. A polychoric correlation matrix estimates a correlation matrix produced from continuous variables based upon the observed ordinal data points, thus correcting for assumptions of continuity in factor extraction methods (Panter, Swygert, Dahlstrom, & Tanaka, 1997).

Factor retention decisions on both subsamples revealed a viable two-factor solution. The scree test suggested the retention of two or three factors, while parallel analysis suggested the retention of five or six factors. Additionally, a four-factor solution was extracted as per Baldwin's (1984) theory. The oblique promax rotation was applied to each solution. The stability of extracted factors was assessed by multiple methods. Stable factors were required to comprise a minimum of three items following application of pattern coefficient cutoffs (Costello & Osborne, 2005; Kahn, 2006). Items crossloading on multiple factors were rejected, and extracted factors were also assessed for conceptual fit and interpretability. Finally, Cronbach's alpha coefficients were calculated to assess internal reliability of extracted subscales. Table 1 presents Cronbach's alpha coefficients for exploratory and comparison subsamples. In both

subsamples, Cronbach's alphas reveal that the six-, five-, four-, and three-factor solutions failed to produce sufficient factors with acceptable internal reliability. These factor solutions produced between zero and two satisfactory internal reliability estimates each, indicating the inadequacy of the full factor solutions. In contrast, the two-factor solution was viable, generating Cronbach's alphas of .81 and .75 for the exploratory subsample and .83 and .75 for the comparison subsample.

The two-factor solution accounted for 24.8% of the exploratory subsample variance and 25.4% of the comparison subsample variance. Table 2 presents pattern coefficients and item communalities for the two-factor model across both subsamples. Item communalities were moderate to high, ranging from .54 to .96 across both subsamples, indicating a stable factor structure (Costello & Osborne, 2005). Table 3 lists the pattern coefficients and communalities of omitted items. Thirteen of the original 42 items were omitted due to low pattern coefficients in the exploratory subsample (<.40), and item 28 was omitted because it cross-loaded significantly on both factors.

The exploratory and comparison subsample factor structures were highly similar, and cross-validation analyses confirmed this similarity. Component comparison was conducted by calculating the coefficients of congruence between the factors extracted from the two halves of the sample (Floyd & Widaman, 1995). The analysis produced strong congruence coefficients, estimated at .95 for the first factor and -.93 for the second. Additionally, pattern coefficients from each factor correlated significantly across subsamples, providing further evidence that the factors extracted from the two subsets were the same. Table 4 presents the results of the cross-validation analyses.

Table 5 displays a comparison of the two-factor structure of the current study with the two-factor structure obtained by Dixon and Azibo (1998), indicating that the present study produced similar results. Nine out of seventeen items on the first exploratory subsample factor (F1) matched items on Dixon and Azibo's ten-item first factor, "Value for African-Centered Institutions and Relationships". The remaining items on F1 were omitted by Dixon and Azibo, and the remaining item on their first factor was omitted from F1 for significant crossloading on the second exploratory subsample factor (F2). Ten out of eleven items on F2 matched items on Dixon and Azibo's thirteen-item second factor, "Value Against Affirmative Africanity", and the remaining item on F2 was omitted. The remaining three items on Dixon and Azibo's second factor did not load significantly on F2 or F1. In the comparison subsample, the first factor (F1a) comprised fifteen items, while the second factor (F2a) comprised eleven. These factors also closely matched Dixon and Azibo's two-factor solution, as indicated in Table 5. Because of their similarity to the Dixon and Azibo factors, the factors extracted in the current study were given the same names.

Convergent validity was estimated by comparing total and subscale scores from the Stereotype Scale (Kelly & Floyd, 2001) with scores on the new factors derived from the African Self-Consciousness Scale. Factor scores were computed for the total dataset (n=348), summing scores from items retained in the exploratory factor analysis to produce subscale scores. Convergent validity correlations are presented in Table 6. Scores on the second subscale, "Value Against Affirmative Africanity" correlated negatively and significantly with the total and subscale scores of the Stereotype Scale,

which measures the presence of negative or stereotypical beliefs about Blacks[2]. The "Value Against Affirmative Africanity" subscale of the ASCS consists of eleven questions suggesting aversion to Afrocentricity. Item content from the two-factor model is listed in Table 7. The items on the "Value Against Affirmative Africanity" subscale are reverse-scored such that high scores indicate the absence of negative beliefs about Afrocentricity. Thus, significant negative correlations between the "Value Against Affirmative Africanity" subscale and the Stereotype Scale are consistent with theoretical expectations. The first factor subscale, "Value for African-Centered Institutions and Relationships", did not correlate significantly with scores from the Stereotype Scale.

[2] The distributions of the Value Against Affirmative Africanity subscale and the Stereotype Scale and subscales were skewed. Responses clustered around the high score range on Value Against Affirmative Africanity items, and around the low score range for Stereotype Scale items. The non-normality of the distributions violates the assumptions of Pearson's *r,* and therefore may produce misleadingly significant correlations. However, extreme response styles have been noted as more prevalent among ethnic minorities in general and among African Americans in particular (Bachman & O'Malley, 1984; Clarke, 2001; Marin, Gamba, & Marin, 1992). Thus, skewed distributions of ASCS and Stereotype Scale scores may be indicative of broader trends in African American response styles and perhaps in their racial attitudes, rather than unique psychometric aberrations of the scales used in the present study. Further research into the item response properties of race- and ethnicity-related scales is recommended.

IV. Discussion

This analysis produced further evidence for a two-factor model of the African Self-Consciousness Scale (ASCS; Baldwin & Bell, 1985), consistent with the results of Dixon and Azibo (1998). One factor of the ASCS, "Value Against Affirmative Africanity", correlated significantly and negatively with the Stereotype Scale, a measure of African Americans' endorsement of various stereotypes about Blacks (Kelly & Floyd, 2001). The "Value Against Affirmative Africanity" factor comprised items measuring the endorsement of negative beliefs about Afrocentricity whereby higher scores indicated fewer negative beliefs. The study strengthened the results of the Dixon and Azibo (1998) study with a relatively large, gender balanced sample. The analysis of latent dimensionality utilized the best available methodologies for factor extraction, retention, and rotation, allowing the researchers to produce a strong, relatively unambiguous factor solution. Results were further strengthened via cross-validation across two subsets of the total sample. The disparate nature of the present sample as compared to the smaller, exclusively male, substance abusing sample analyzed by Dixon and Azibo (1998) provides a greater breadth of evidence for the two-factor solution across two differing samples. Furthermore, convergent validity analysis provides a measure of construct validity, as well as support for the dimensional model of the ASCS insofar as the two factors relate differentially to another measure of racial attitudes.

These findings help to refine Baldwin and Bell's theory regarding the four proposed dimensions of African Self-Consciousness: (1) awareness of one's African-derived identity and cultural heritage; (2) recognition of African American collective survival priorities; (3) participation in the self-knowledge, affirmation and development

of people of African descent; and (4) recognition of oppression (Baldwin 1981; Baldwin & Bell 1985). The first subscale of the ASCS, "Value for African Centered Institutions and Relationships", addresses all four dimensions of Baldwin and Bell's proposed construct. For instance, the item "It is intelligent for Blacks in America to organize to educate and liberate themselves from white-American domination" explicitly addresses the second and fourth dimensions of the African Self-Consciousness construct. Thus, the data indicated that all four theorized dimensions are represented in a single latent dimension, consistent with Baldwin and Bell's (1985) conceptualization of the African Self-Consciousness Scale as representing a unitary construct. In addition, the findings revealed a second latent dimension not included in Baldwin's original theory. Labeled "Value Against Affirmative Africanity", this dimension is measured by items of the ASCS that express non-Afrocentric or anti-Afrocentric values.

Convergent validity findings also suggest that the African Self Consciousness Scale comprises two underlying dimensions that are distinct due to their differing associations with endorsements of negative stereotypes about African Americans. The first subscale, "Value for African-Centered Institutions and Relationships", did not correlate with Stereotype Scale scores. The second subscale, "Value Against Affirmative Africanity", correlated negatively with Stereotype Scale scores, indicating a relationship between endorsements of non- or anti-Afrocentric values and endorsements of negative stereotypes about African Americans. The negative correlation is consistent with the scoring of "Value Against Affirmative Africanity" items, whereby higher scores indicate fewer endorsements of non- or anti-Afrocentric statements. Thus, African Americans in this sample expressing lower levels of opposition to or distance from Afrocentricity

tended to endorse fewer negative stereotypes. Research into the differential relationships of ASCS factors to racial attitudes is recommended.

Some elements of the current study that may warrant further analysis and data collection. First, while the sample in the current study is large, replication of the findings with a large, nationally representative sample of African Americans may be useful given the relatively high median income of the present sample. Second, while the factor analyses were conducted with a divided sample that removed cross-partner dependency, it may be beneficial to collect a non-dyadic sample to confirm the two-factor model. Additionally, there exist a number of measures of Afrocentricity that are similar in some ways to the ASCS and dissimilar in others, and these differences may be instructive with respect to construct validity. For instance, the Belief System Analysis Scale (Brookins, 1994) or the Nguzo Saba scale (Grills & Longshore, 1996) reflect aspects of Afrocentricity theorized to be more universal and cultural, such as communalism versus individualism, that differ from Baldwin and Bell's specifically racial and sociopolitical emphasis. Finally, the current study reduced the scale from a 42- to a 28-item measure, which should be pilot tested for its psychometric properties in future studies.

This study produced additional support for the two-factor model of the African Self-Consciousness Scale, first introduced by Dixon and Azibo (1998). The two subscales, labeled "Value for African-Centered Relationships and Institutions" and "Value Against Affirmative Africanity", had satisfactory internal consistency. Significant association between the latter subscale and the Stereotype Scale (Kelly & Floyd, 2001) provided preliminary evidence of convergent validity, as well as evidence for future use of a revised, multidimensional African Self Consciousness Scale. Future

research should also utilize new samples and conduct further analyses to scrutinize the psychometric properties of the ASCS to increase its value as a measure of Afrocentricity and its role in the lives of African Americans.

V. Tables

Table 1

Cronbach's Alphas For Extracted Factor Solutions

	Exploratory Subsample				
Factor	Six Factors	Five Factors	Four Factors	Three Factors	Two Factors
I	0.57	**0.78**	0.67	**0.81**	**0.81**
II	**0.72**	0.69	0.69	**0.80**	**0.75**
III	0.27	0.08	0.46	0.30	
IV	-[a]	0.24	0.50		
V	0.57	0.32			
VI	**0.74**				
	Comparison Subsample				
Factor	Six Factors	Five Factors	Four Factors	Three Factors	Two Factors
I	**0.80**	**0.79**	**0.79**	**0.84**	**0.83**
II	0.68	**0.71**	**0.72**	**0.75**	**0.75**
III	0.57	0.45	0.31	0.41	
IV	0.34	0.23	0.00		
V	0.13	-0.05			
VI	0.32				

Note. Factors with alphas greater than .70 in bold.

[a] Factor contained only one item.

Table 2
Two-Factor Model of the ASCS Across Exploratory And Comparison Subsamples

	Exploratory Subsample (n=174)			Comparison Subsample (n=174)		
ASCS Item	h^2	F1	F2	h^2	F1a	F2a
40	0.58	**0.65**	0.00	0.73	**0.51**	0.00
36	0.62	**0.62**	0.11	0.55	**0.68**	0.00
12	0.61	**0.61**	0.22	0.69	**0.55**	-0.15
24	0.54	**0.58**	-0.28	0.68	0.39	0.38
6	0.68	**0.57**	0.00	0.78	**0.46**	-0.15
2	0.69	**0.56**	0.00	0.69	**0.55**	0.00
26	0.64	**0.56**	-0.13	0.73	**0.46**	0.21
16	0.65	**0.54**	-0.19	0.43	**0.73**	0.14
10	0.71	**0.51**	-0.13	0.53	**0.62**	0.25
22	0.62	**0.49**	-0.32	0.55	**0.47**	**0.45**
14	0.75	**0.48**	0.00	0.64	0.00	0.32
20	0.68	**0.48**	-0.24	0.61	**0.57**	0.21
32	0.77	**0.47**	0.18	0.65	**0.57**	-0.19
42	0.77	**0.46**	0.00	0.76	**0.49**	0.00
30	0.81	**0.44**	0.00	0.72	**0.48**	0.17
18	0.81	**0.43**	0.00	0.87	0.35	-0.10
38	0.79	**0.40**	-0.16	0.97	0.00	0.14
37	0.54	-0.12	**-0.68**	0.85	0.00	0.38
5	0.50	0.15	**-0.67**	0.84	0.15	0.36
23	0.61	0.11	**-0.60**	0.61	0.11	**0.61**
31	0.61	0.15	**-0.59**	0.67	0.16	**0.53**
25	0.66	-0.10	**-0.59**	0.68	-0.12	**0.56**
19	0.67	0.00	**-0.56**	0.73	0.10	**0.51**
15	0.72	-0.11	**-0.53**	0.68	-0.20	**0.55**
21	0.77	0.10	**-0.46**	0.69	0.00	**0.56**
29	0.80	0.00	**-0.45**	0.90	0.00	0.32
17	0.82	-0.15	**-0.42**	0.86	-0.18	0.35
41	0.82	0.00	**-0.42**	0.62	0.23	**0.55**

Note. h^2 = communalities, F1 = Factor 1, F2 = Factor 2. Significantly loading pattern coefficients in bold.

Table 3
Items Omitted From Two-Factor Model Of The ASCS With Pattern Coefficients and Communalities

	Exploratory Subsample (n=174)			Comparison Subsample (n=174)		
ASCS Item	h^2	F1	F2	h^2	F1a	F2a
1	0.96	0.14	-0.11	0.90	0	0.31
3	0.87	-0.14	-0.34	0.81	-0.19	**0.41**
4	0.83	0.34	0.29	0.72	**0.42**	-0.37
7	0.83	0.12	-0.38	0.93	0.00	0.25
8	0.86	0.38	0.00	0.85	0.38	0.00
9	0.84	0.00	-0.38	0.63	0.00	**0.59**
11	0.93	0.10	-0.23	0.92	0.00	0.26
13	0.85	0.00	-0.38	0.74	0.00	**0.50**
27	0.99	0.00	0.00	0.96	0.19	0.00
28	0.59	**0.54**[a]	**0.43**[a]	0.66	**0.53**	-0.30
33	0.87	0.00	-0.35	0.63	-0.10	**0.61**
34	0.87	0.35	0.13	0.84	0.39	-0.11
35	0.98	0.00	0.12	0.97	0.16	0.00
39	0.96	-0.11	0.16	0.99	0.00	0.00

Note. h^2 = communalities, F1 = Factor 1, F2 = Factor 2. Significantly loading pattern coefficients in bold.

[a] Item 28 omitted due to crossloading on both factors.

Table 4
Cross-Validation Analyses From Half-Sample Subsets

	Pattern Coefficient Intercorrelations	
Factor	F1a	F2a
F1	.91**	-
F2	-	-.91**
	Coefficients of Congruence	
F1	.95	.09
F2	.00	-.93

Note. F1 and F2 are exploratory subsample factors; F1a and F2a are comparison subsample factors.
** $p<.01$

Table 5
Comparison of Exploratory and Comparison Subsample Pattern Loadings With Dixon & Azibo Two-Factor Solution

ASCS Item	F1	F1a	D&A F1	ASCS Item	F2	F2a	D&A F2
40	**0.65**	**0.51**	**0.64**	*37*	**-0.68**	0.38	**0.69**
36	**0.62**	**0.68**	-	*5*	**-0.67**	0.36	**0.51**
12	**0.61**	**0.55**	-	*23*	**-0.60**	**0.61**	**0.59**
24	**0.58**	0.39	-	*31*	**-0.59**	**0.53**	**0.71**
6	**0.57**	**0.46**	**0.68**	*25*	**-0.59**	**0.56**	**0.66**
2	**0.56**	**0.55**	**0.72**	*19*	**-0.56**	**0.51**	**0.55**
26	**0.56**	**0.46**	**0.51**	*15*	**-0.53**	**0.55**	**0.53**
16	**0.54**	**0.73**	**0.58**	*21*	**-0.46**	**0.56**	-
10	**0.51**	**0.62**	**0.60**	*29*	**-0.45**	0.32	**0.76**
22	**0.49**	**0.47**	**0.81**	*17*	**-0.42**	0.35	**0.65**
14	**0.48**	0.00	-	*41*	**-0.42**	**0.55**	**0.55**
20	**0.48**	**0.57**	-	*7*	-0.38	0.25	**0.60**
32	**0.47**	0.57	-	*9*	-0.38	**0.59**	**0.56**
42	**0.46**	0.49	-	*33*	-0.35	**0.61**	**0.53**
30	**0.44**	**0.48**	**0.51**				
18	**0.43**	0.35	**0.51**				
38	**0.40**	0.00	-				
28	**0.54**[a]	**0.53**[a]	**0.51**[a]				

Note. F1, F2=exploratory subsample factor. F1a, F2a=comparison subsample factor. Significant pattern coefficients in bold. Dixon and Azibo did not provide a full report of pattern coefficients. Thus, this table does not provide comparisons of items that failed to load significantly in both studies.

[a] Item 28 was omitted from the current two-factor solution due to significant crossloading on both exploratory subsample factors.

Table 6

Convergent Validity: Correlations between ASCS and Stereotype Scale Scores

Scale	ASCS F1	ASCS F2	ASCS Total	SS General	SS Women	SS Men	SS Total
ASCS F1	-	.13*	.87**	-.02	-.07	.04	-.01
ASCS F2	.13*	-	.60**	-.34**	-.27**	-.26**	-.31**
ASCS Total	.87**	.60**	-	-.17**	-.17**	-.07	-.14*

Note. SS = Stereotype Scale.

*$p \leq .05$ **$p \leq .01$

Table 7
Two-Factor Model Of African Self-Consciousness: Item Content

Item	Item Content	Loading
F1:	**Value for African-Centered Institutions and Relationships**	
40	It is good for Black people to refer to each other as brother and sister because such a practice is consistent with our African heritage.	.65
36	African culture is better for humanity than European culture.	.62
12	As a good index of self-respect, Blacks in America should consider adopting traditional African names for themselves.	.61
24	It is good for Blacks in America to wear traditional African-type clothing and hair styles if they desire to do so.	.58
6	Regardless of their interests, educational background and social achievements, I would prefer to associate with black people than with non-Blacks.	.57
2	Black people should have their own independent schools which consider their African heritage and values an important part of the curriculum.	.56
26	All Black students in Africa and America should be expected to study African culture and history as it occurs throughout the world.	.56
16	Racial consciousness and cultural awareness based on traditional African values are necessary to the development of Black marriages and families that can contribute to the liberation and enhancement of Black people in America.	.54
10	Black children should be taught that they are African people at an early age.	.51
22	It is good for Black husbands and wives to help each other develop racial consciousness and cultural awareness in themselves and their children.	.49
14	Blacks born in the United States are Black or African first, rather than American or just plain people.	.48
20	It is intelligent for Blacks in America to organize to educate and liberate themselves from white-American domination.	.48
32	When a black person uses the terms "Self, Me, and I," his/her reference should encompass all Black people rather than simply him/herself.	.47
42	Being involved in wholesome group activities with other Blacks lifts my spirits more so than being involved in individual oriented activities.	.46
30	White people, generally speaking, do not respect Black life.	.44
18	Blacks should form loving relationships with and marry only other blacks.	.43
38	The success of an individual Black person is not as important as the survival of all Black people.	.40

Table 7 (Continued)

Item	Item Content	Loading
F2:	**Value Against Affirmative Africanity**	
37	Black people's concern for self-knowledge (knowledge of one's history, philosophy, culture, etc.) and self (collective)-determination makes them treat white people badly.	-.68
5	Blacks in America should try harder to be American rather than practicing activities that link them up with their African cultural heritage.	-.67
23	Africa is not the ancestral homeland of all Black people who are not close friends or relatives.	-.60
31	Blacks in America should view Blacks from other countries (e.g. Ghana, Nigeria and other countries in Africa) as foreigners rather than as their brothers and sisters.	-.59
25	I feel little sense of commitment to Black people who are not close friends or relatives.	-.59
19	I have difficulty identifying with the culture of African people.	-.56
15	Black people who talk in a relatively loud manner, with a lot of emotions and feelings, and express themselves with a lot of movement and body motion are less intelligent than Blacks who do not behave this way.	-.53
21	There is no such thing as African culture among Blacks in America.	-.46
29	If I saw Black children fighting, I would leave them to settle it alone.	-.45
17	In dealing with other blacks, I consider myself quite different and unique from most of them.	-.42
41	It is not necessary to require Black/African Studies courses in predominately Black schools.	-.42

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