

Validating the Cross Racial Identity Scale

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Validation work on the Cross Racial Identity Scale (CRIS; B. J. Vandiver et al., 2000) is described in 2 studies using African American college students. In Study 1, an exploratory factor analysis supported the presence of 6 CRIS subscales. In Study 2, confirmatory factor analysis provided support for a 2-factor higher order model of the 6 CRIS subscales and the nigrescence model. Correlational analyses between the CRIS and the Multidimensional Inventory of Black Identity (R. M. Sellers, M. A. Smith, J. N. Shelton, S. A. J. Rowley, & T. M. Chavous, 1998), supported the convergent validity of the CRIS. CRIS subscale scores were not meaningfully linked to social desirability or personality traits but were differentially linked to self-esteem.

Cross's 1971 nigrescence theory is considered one of the seminal Black racial identity theories. Helms (1990) stated "the Cross (1971, 1978) model, in toto or in part, has been the primary means of investigating racial identity in the counseling and psychotherapy process" (p. 19). Cross revised nigrescence theory and its model in 1991. Despite the revisions, the 1971 theory continues to be cited and used empirically (e.g., Narcisse, 1999; Thomas & Speight, 1999). A primary reason for the continued use of the original theory is its association with a scale. The development of the Racial Identity Attitude Scale—Black (RIAS-B; Parham & Helms, 1981) made nigrescence theory more accessible for practical and research applications. A PsycINFO search of studies from 1981 to present identified approximately 50 studies that used the scale, and many studies that used the RIAS-B were not included in that list (e.g., Parham & Helms, 1985a, 1985b). Apart from its use in studies of Black racial identity (e.g., Cole, 1998; Plummer, 1995), the RIAS-B has been used to examine the relationship between the Black racial identity constructs and numerous variables, including academic achievement (Hood, 1998), acculturation (Morrow, 1998), gender role conflict (Wade, 1996), psychosocial competence (Carter, DeSole, Sicalides, Glass, & Tyler, 1997), self-actualization (Parham & Helms, 1985b), self-esteem (Dartson, 1999; Manning, 1998; Parham & Helms, 1985a), social class (Carter & Helms, 1988), and student involvement (Taylor & Howard-Hamilton, 1995).

The availability of the RIAS-B invigorated racial identity research in the fields of multicultural and counseling psychology. However, the RIAS-B is dated with respect to the revised nigrescence theory (Cross, 1991, 1995). The purpose of this article is to present validation work on the Cross Racial Identity Scale (CRIS; Vandiver et al., 2000), a scale designed to measure the theoretical constructs proposed in the most recent incarnations of nigrescence theory (Cross, 1991; Cross & Vandiver, 2001; Worrell, Cross, & Vandiver, 2001).

Nigrescence Theory—Revised

In a 1991 publication entitled *Shades of Black*, Cross highlighted a number of revisions in the nigrescence model. Like the original, the revised theory describes different ideologies of Black identity that African American people may have. However, Cross made substantive revisions to the nigrescence theory. The changes in the revised theory fall under two broad areas: (a) the distinction between group and personal identity and their influence on self-esteem and (b) revisions in the number of stages and identities within those stages.

Identity Orientation and Self-Esteem

In the original nigrescence theory (Cross, 1971), racial preference was believed (a) to be a part of a Black person's personal identity and (b) to affect the person's mental health functioning. If Blacks accepted being Black, then they were assumed to be psychologically healthy and to have high self-esteem. In contrast, Blacks who accepted the values of White society were believed to suffer from self-hatred and, as a result, low self-esteem. In the revised nigrescence theory, personal identity and group identity, or reference group orientation, are clearly delineated, as are their hypothesized relationships with self-esteem.

On the basis of the review of the racial preference literature, Cross (1991) posited that self-concept is composed of two com-

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ponents: personal identity (PI) and reference group orientation (RGO). PI refers to general personality features such as traits and is reflected in measures of general personality (e.g., NEO Personality Inventory—Revised [NEO-PI-R]; Costa & McCrae, 1992), psychopathology (e.g., Minnesota Multiphasic Personality Inventory [MMPI]; Dahlstrom, Welsh, & Dahlstrom, 1972), and self-esteem (e.g., Rosenberg Self-Esteem Scale [RSES]; Rosenberg, 1965). RGO refers to the social group memberships that a person has. Social membership is based on variables such as race, gender, sexual orientation, religion, disability, and so forth, and a person can belong to more than one social group at the same time. RGO is different from PI in that RGO is based on social affiliation preference, whereas PI refers to an individual's sense of personal uniqueness (e.g., I am outgoing, sensitive, adventuresome).

The revised nigrescence theory postulates that PI plays a minor role in the definition of Black identity, as Blackness is a reference group variable, or social identity, and not a personal identity variable. RGO also reflects the importance, or *salience*, of race in the life of an individual, as well as the *valence* given to race. Thus, Blacks can view race as (a) of no importance (low race salience) with neutral valence, (b) of singular importance (high race salience) with a positive valence, or (c) of singular importance (high race salience) with a negative valence (Cross & Vandiver, 2001).

Cross's (1991) distinction between PI and RGO and the connection between race salience and RGO led to a reexamination of the relationship believed to exist between racial identity and self-esteem. A Black person with an RGO toward the White race is no longer assumed to suffer from low self-esteem or poor mental health (both examples of PI). In the same vein, a Black person with an RGO toward the Black race is no longer assumed to have high self-esteem or positive mental health. Cross (1991) hypothesized one exception to this pattern: Black self-hatred (high negative race salience) is believed to be related to low self-esteem because it incorporates a negative RGO into the PI. The acceptance of a non-Black RGO in absence of a negative view of Blacks does not lead to low self-esteem or poor mental health.

The Revised Nigrescence Model

In contrast to the original model (Cross, 1971), four stages of Black racial identities, instead of five, are described in the revised model (Cross, 1991). Unlike those in the original model, the names of the stages in the revised model do not represent identities; instead, the names describe the overarching theme of the stage. The four stages in the revised model are Pre-Encounter, Encounter, Immersion–Emersion, and Internalization. The Pre-Encounter stage is characterized by two identities (Cross, 1991): Assimilation and Anti-Black. Individuals with the Assimilation identity have a pro-American RGO, and race is not salient to them. Those with the Anti-Black identity are characterized by miseducation and self-hatred. Cross (1991) used the term *miseducation* to describe the negative stereotypical mindset Blacks may have about the African American community. The self-hatred aspect of the Anti-Black identity is based on an individual's negative views about being Black.

The Encounter stage retains the same name in the revised model, and it depicts the experience of an event or series of events that motivates individuals to reexamine their RGO. However, the Encounter stage does not describe an identity cluster as the other

stages do—it describes the process of a reexamining one's RGO. If the cognitive and emotional discomfort produced by this reexamination is sufficiently intense, individuals move to the Immersion–Emersion stage. The two aspects of the Immersion–Emersion stage are recast as two separate identities: Intense Black Involvement and Anti-White. Intense Black Involvement describes a Black person's overromanticized immersion into the Black experience. Individuals manifesting the Anti-White identity reject everything White, to the point of demonizing Whites and their culture.

The Internalization stage in the revised model synthesizes the Internalization (Stage 4–Black acceptance) and Internalization–Commitment (Stage 5–activism) stages from the original model (Cross, 1971):

Current theory suggests that there are few differences between the psychology of Blacks at the fourth and fifth stages of nigrescence other than the important factor of sustained interest and commitment. . . . Consequently, . . . a more differentiated look at Internalization–Commitment awaits the results of future research. (Cross, 1991, p. 220)

The three identities in the revised Internalization stage share the marker of Black acceptance (high positive race salience) and activism: Black Nationalist, Biculturalist, and Multiculturalist. Black Nationalists concentrate their energies on empowering the Black community. The Biculturalist identity is characterized by two salient elements: Black self-acceptance and an active focus on one other cultural orientation (e.g., gender, nationality, and sexual orientation). Alongside a positive Black identity, the Multiculturalist also focuses actively on two or more salient cultural identities. Unlike the Black Nationalist, the Biculturalist and Multiculturalist want to build coalitions beyond the Black community. Thus, the revised model (Cross, 1991, 1995) is characterized by seven Black racial identities (two in Pre-Encounter, two in Immersion–Emersion, and three in Internalization).

Nigrescence Theory—Expanded

In 1995, Cross and his colleagues initiated the development of the CRIS (Vandiver et al., 2000) to measure the revised model (Cross, 1991). In the process of developing the CRIS, revisions were made to the revised model (Vandiver, Fhagen-Smith, Cokley, Cross, & Worrell, 2001; Worrell et al., 2001). A full explication of the expanded nigrescence model and theory is presented in Cross and Vandiver (2001).

The Expanded Nigrescence Model

The same four stages in the revised model (Cross, 1991) describe the overarching themes of Black racial identities in the expanded model (Cross & Vandiver, 2001). However, in the expanded model the Pre-Encounter stage describes three identities: Assimilation, Miseducation, and Self-Hatred. Pre-Encounter Assimilation is still characterized the same way as it was in the revised nigrescence model. However, findings of the early phases of scale development revealed that the miseducation and self-hatred components of Pre-Encounter Anti-Black represented separate identities (Vandiver et al., 2001). The Pre-Encounter Miseducation identity describes the negative stereotypical mindset a Black

person has about the Black community in general, whereas the Pre-Encounter Self-Hatred identity characterizes Blacks who view themselves negatively as a result of their race. Separation of miseducation and self-hatred also resulted in the revision of the proposed relationship between Pre-Encounter Anti-Black and self-esteem. In the expanded model, a negative relationship is considered to exist only between Pre-Encounter Self-Hatred and self-esteem. Blacks who rate themselves high on self-hatred also rate themselves low on self-esteem. Misinformation about other Blacks is not considered to lead to low self-esteem. Hatred of self because of being Black shifts identity issues from an RGO to a PI level (Vandiver et al., 2001).

The Immersion–Emersion stage still depicts the same two identities as in the revised nigrescence model: Intense Black Involvement and Anti-White. Similarly, the Internalization stage has the same three identities: Black Nationalist, Biculturalist, and Multiculturalist Inclusive. Thus, eight Black racial identities are believed to characterize the expanded nigrescence model (three Pre-Encounter, two Immersion–Emersion, and three Internalization), but only seven are believed to be measurable. Prior to developing the CRIS, we decided not to create a subscale for the Internalization Biculturalist identity. Theoretically, the Biculturalist identity describes the possibility that Blacks have another salient cultural identity beyond Blackness. Most people, in reality, are believed to possess multiple cultural identities. Thus, in all likelihood, Multiculturalists would endorse items for both the Biculturalist and Multiculturalist identities, resulting in a lack of distinction between the two constructs. Thus, only six of the seven measurable identities are currently measured on the CRIS.

We developed a subscale for the Intense Black Involvement identity, but we did not include it in the current CRIS (Vandiver et al., 2001; Worrell et al., 2001). From the initial scale development of the CRIS, we included the Immersion–Emersion Intense Black Involvement (IEIBI) subscale, but we dropped it temporarily at the end of Phase 4. Empirical findings from Phases 2 through 4 revealed that the IEIBI subscale was not as stable as the other CRIS subscales. Reliability estimates of the IEIBI scores fluctuated from the low .60 to the mid-.80 range. IEIBI's intercorrelations with the Anti-White and Black Nationalist subscales, especially with the latter subscale, typically varied between the .40 and .50 range. Exploratory factor analysis in Phase 4 supported the bivariate findings: IEIBI items loaded on the same factor as the Black Nationalist items, reflecting a pro-Black identity without distinguishing the essence of the internalized Black Nationalist, a well-defined ideology, from the affectively laden and romanticized essence of the immersed Intense Black Involvement identity (Vandiver et al., 2001). In addition, the theoretical base of the Intense Black Involvement identity is under review. Is it an independent Immersion identity or an aspect of the Anti-White identity in the same stage? As a result of the empirical findings and the theoretical questions about Intense Black Involvement, we made an a priori decision not to include the IEIBI subscale in the validation studies below. Instead we included a revised IEIBI subscale for experimental examination for continued evaluation of its relevance as a viable theoretical and empirical construct.

Scale development findings of Phases 3 and 4 also indicated the possible existence of a new internalization multicultural identity—Internalization Multiculturalist Racial. Like the Multiculturalist Inclusive, the Multiculturalist Racial has a positive Black RGO. In

contrast to the Multiculturalist Inclusive individual, who is open to building coalitions with all diverse cultural groups, the Multiculturalist Racial individual does not want to build coalitions beyond racial minority groups. Because the Multiculturalist Racial identity emerged as a theoretical construct in Phase 4 of scale development, its viability as a nigrescence identity has not been established. As a result, its subscale is still in the preliminary stages of development, and we included it in the CRIS for experimental purposes only.

Validation of the CRIS

The initial scale development process on the CRIS consisted of four phases (studies) and used three independent samples. Through empirical findings and in the context of scale development, Vandiver (2001), Vandiver et al. (2001), and Worrell et al. (2001) chronicled the shift from the revised model to the expanded model. Cross and Vandiver (2001) have explicated in detail the expanded nigrescence model and have provided a brief empirical summary of the CRIS across the six phases of scale development. The two studies (Phases 5 and 6) reported in this article provide construct validity information for the current version of the CRIS through exploratory and confirmatory factor analyses and highlight the current convergent and discriminant validity of the CRIS through correlational analyses.

We based the current validation of CRIS subscale scores on the following criteria: (a) unidimensional constructs (i.e., subscale intercorrelations not to exceed $|.30|$ and subscale items loading on unique factors [Cohen, 1988; Dawis, 2000; John & Benet-Martinez, 2000]), (b) internal consistency estimates of subscale scores at or above .80 (Clark & Watson, 1995, p. 316), (c) evidence of convergent validity (i.e., at least 9% of shared variance with similar constructs; Cohen, 1988), and (d) evidence of discriminant validity (i.e., less than 9% of shared variance with theoretically distinct measures; Cohen, 1988).

Study 1

In Study 1, we conducted a preliminary examination of the structural validity of the CRIS by using exploratory factor analysis. We hypothesized six factors would parallel the six CRIS subscales.

Method

Participants

Participants were 296 African American college students (76 males, 212 females, 8 unspecified), attending a mid-Atlantic, predominantly White university. Ninety percent classified themselves as undergraduates ($n = 264$), and approximately 9% ($n = 27$) were graduate students (5 unspecified). Participants' ages ranged from 17 to 43 years ($M = 20.64$ years, $SD = 3.29$), and their grade point average (GPA), based on a 4.00 scale, ranged from 1.00 to 4.00 ($M = 2.92$, $SD = 0.53$). The majority (91%) of the participants described their social class as working ($n = 127$) or middle ($n = 143$) class. Forty-eight percent of the participants reported family incomes between \$15,000 and \$49,999 ($n = 143$), and 40% reported family incomes above \$50,000 ($n = 118$). Seventy-five percent of the participants indicated that their maternal parent had completed high school ($n = 51$), attended some college ($n = 116$), or completed college ($n = 56$), and 69% reported a similar pattern for their paternal parent (completed high school, $n = 65$; attended some college, $n = 82$; completed college, $n = 58$).

Measures

Participants completed two measures: a background information sheet and the CRIS. The following background information was collected: sex, age, racial designation, academic class standing, GPA, social class status of family of origin, educational level of each parent/guardian, and income of family of origin.

The CRIS used in Study 1 consisted of 64 items across eight subscales. Six subscales (50 items) were the focus for the present study: Pre-Encounter Assimilation (PA; 8 items), Pre-Encounter Miseducation (PM; 11 items), Pre-Encounter Self-Hatred (PSH; 7 items), Immersion–Emersion Anti-White (IEAW; 5 items), Internalization Black Nationalist (IBN; 11 items), and Internalization Multiculturalist Inclusive (IMCI; 8 items). We are still developing two subscales (13 items), and we included them on the scale for experimental purposes only. The first item on the scale is a filler item and is not associated with any subscale.

Table 1 provides a sample item from each CRIS subscale examined in this study. The Assimilation (PA) items describe a pro-American identity; the Miseducation (PM) items focus on negative stereotypical views about African American people; and the Self-Hatred (PSH) items describe an anti-Black, self-hating identity. Anti-White (IEAW) items describe a person's dislike and distrust of Whites, whereas Black empowerment and success based on the work of Blacks characterize the Black Nationalist (IBN) items. The Multiculturalist Inclusive (IMCI) subscale describes Black self-acceptance and the acceptance of other cultural groups. All items are rated on a 7-point scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Only subscale scores are used and are derived by summing the ratings of items for each subscale.

On the basis of college samples from predominantly White universities in the Northeast, previous reliability estimates for the scores of CRIS subscales have ranged from .59 to .91 (*Mdn* = .77). Subscale intercorrelations have ranged from |.01| to |.63| (*Mdn* = |.18|), and exploratory factor analyses have supported a six-factor solution for the subscales currently under study (Vandiver et al., 2001).

Procedures

African American recruiters went to various sites (residence halls, student center, cafeteria, and cultural centers) on campus to solicit individual African American students or recruited through African American student organizations such as sororities, fraternities, the graduate student association and the choral group. In addition, students were recruited by an

electronic mailing list maintained for full-time enrolled African American students. Potential participants were told that the study was examining social identity attitudes and were provided a monetary incentive (\$5) for their participation. The survey was administered in groups by one of eight data collectors of African descent (three men and five women) with various academic statuses (three undergraduates, three graduate students, and two faculty).

Results

Descriptive Statistics

We used 50 of the 64 items on the CRIS in statistical analyses. As subscales had different numbers of items, we calculated subscale mean scores to allow for comparability across subscales. Subscale mean scores and standard deviations, reliability estimates of scores, and observed and corrected correlations among the six CRIS subscales are presented in Table 2. Alpha coefficients for CRIS subscale scores ranged from .76 to .89. One correlation was greater than .30—IEAW was correlated positively to IBN, sharing approximately 19% of the variance—and two correlations approached |.30|. However, correlations corrected for attenuation indicated that the relationship between IEAW and IBN was potentially much higher than desired.

Exploratory Factor Analysis

We conducted an exploratory factor analysis on CRIS items to assist in the identification of items that best reflected the nigrescence identities. Factorability of the scores on the CRIS items was based on the determinant of the correlation matrix (12.009^{E-11}) and Kaiser–Meyer–Olkin Measure of Sampling Adequacy ($KMO = .83$). We interpreted a principal-axis factor extraction with oblique rotation for a number of reasons: (a) Principal-components extraction can result in inflated factor loadings because of inclusion of error variance, (b) a simple structure bias is associated with an orthogonal rotation, and (c) uncorrelated factors can be obtained even when a nonrestricted solution is used (Cudeck, 2000; Floyd & Widaman, 1995; Gorsuch, 1990, 1997). Factor retention was based on multiple criteria (Thompson & Daniel, 1996): parallel analysis (Lautenschlager, 1989), a minimum loading of three items on each factor (Floyd & Widaman, 1995), a minimum factor coefficient of |.50| for each item (Comrey & Lee, 1992), and the interpretability of the factors (Tinsley & Tinsley, 1987). We extracted six factors as this solution was supported by parallel analysis, and factor structures with more than six factors did not meet the other retention criteria (e.g., three-item minimum). Given communalities ranging from .11 to .41 (*Mdn* = .42) and a variable-to-factor ratio of approximately 20:3, the sample size of 296 was adequate for producing a convergent and admissible solution (MacCallum, Widaman, Zhang, & Hong, 1999).

Table 3 presents the structure coefficients, eigenvalues, percent of variance, and construct reliability estimates for the structure coefficients on each factor. Factor intercorrelations ranged from |.01| to |.26| (*Mdn* = |.09|), with the largest intercorrelation between the Anti-White and Black Nationalist factors. Items from each CRIS subscale loaded on the same factor, and only one item had a cross-loading above |.40|. Thus, we named factors after the subscales. Nine of the eleven PM items loaded at or above |.50| on Factor I. All 11 IBN items loaded on Factor II, with five having

Table 1
Sample Items From the Cross Racial Identity Scale

Subscale	Item
PA	I think of myself primarily as an American and seldom as a member of a racial group.
PM	Blacks place more emphasis on having a good time than on hard work.
PSH	I sometimes have negative feelings about being Black.
IEAW	I hate White people.
IBN	As Black Nationalists, we must work on empowering ourselves, and not on hating others.
IMCI	I believe it is important to have both a Black identity and a multicultural perspective, which is inclusive of everyone (e.g., Asians, Latinos, gays, lesbians, Jews, Whites, etc.).

Note. PA = Pre-Encounter Assimilation; PM = Pre-Encounter Miseducation; PSH = Pre-Encounter Self-Hatred; IEAW = Immersion–Emersion Anti-White; IBN = Internalization Black Nationalist; IMCI = Internalization Multiculturalist Inclusive.

Table 2
Descriptive Statistics of Cross Racial Identity Scale Scores From Study 1

Subscale	1 (8) ^a	2 (11)	3 (7)	4 (5)	5 (11)	6 (8)	<i>M</i>	<i>SD</i>
1. PA	(.85)	.33	.11	-.28	-.31	.10	3.32	1.25
2. PM	.29*	(.89)	.29	.06	.19	.01	3.19	1.15
3. PSH	.09	.25*	(.85)	.12	.17	.04	2.00	1.06
4. IEAW	-.24*	.05	.10	(.85)	.52	-.36	1.73	0.89
5. IBN	-.25*	.16	.14	.43*	(.79)	.01	3.99	0.80
6. IMCI	.08	.01	.03	-.29*	.01	(.76)	5.58	0.83

Note. *N* = 296 college students. Alpha coefficients are presented in parentheses on the diagonal, observed correlations are presented below the diagonal, and correlations corrected for attenuation are presented above the diagonal. PA = Pre-Encounter Assimilation; PM = Pre-Encounter Miseducation; PSH = Pre-Encounter Self-Hatred; IEAW = Immersion–Emersion Anti-White; IBN = Internalization Black Nationalist; IMCI = Internalization Multiculturalist Inclusive.

^a Number of items on subscale.

* *p* < .001.

structure coefficients at or above the cutoff. Factor III consisted of the eight IMCI items, with loadings at or above the cutoff. Factor IV was made up of the seven PSH items. PA items loaded exclusively on Factor V, with only one of the eight items falling below |.50|. Factor VI was made up of all five IEAW items. Construct reliability estimates for subscales based on items that loaded at or above .50 ranged from .72 to .89, with both IMCI and IBN estimates less than .80.

Study 2

We retained 35 of the 50 CRIS items from Study 1 for use in Study 2. The primary measurement concerns for Study 2 were reducing the overlap between the Anti-White and Black Nationalist subscales and increasing the internal consistency estimates of scores on the Internalization subscales. A content analysis of the correlational pattern among the Anti-White and Black Nationalist items revealed that IBN items with the highest correlations with other IBN items and the lowest correlations with IEAW items all contained the term *Afrocentric*. To capture a cleaner construct of Black Nationalism, we decided to narrow the Black Nationalist construct to measure an Afrocentric identity instead of a global identity of Black Nationalism. We changed the subscale name to Internalization Afrocentric (IA) to reflect the change in item content. An example of an IA item is “Black people will never be free until we embrace an Afrocentric perspective.”

In Study 1 and prior studies (Vandiver et al., 2001), the reliability coefficients for the IMCI scores have consistently been in the .70 range. To increase the internal consistency estimates of IMCI scores, we revised items to be more precise in wording and to be more similar in content.

Goals

To examine the construct validity of the CRIS, we conducted confirmatory factor analyses to compare the six-factor model with several competing models. We examined convergent validity by comparing CRIS subscales with similar subscales on the Multidimensional Inventory of Black Identity (MIBI; Sellers, Smith, Shelton, Rowley, & Chavous, 1998), another measure of Black racial identity. We tested discriminant validity by examining the relationship between CRIS subscales and measures of personality,

global self-esteem, and social desirability. Measures used to establish convergent and discriminant validity for the CRIS are in keeping with the revisions to nigrescence theory (Cross, 1991, 1995; Cross & Vandiver, 2001). The rationale for each measure is explicated by hypotheses.

Structural Validity Hypotheses

On the basis of previous findings, we expected a six-factor model to represent the best fit for the six CRIS subscale scores when compared with other models. In addition, we tested two exploratory higher order models based on nigrescence theory: a one-factor higher order model and a two-factor higher order model. The single-factor higher order model tested the presence of a higher order factor, labeled *Race Salience*, linking the six subscales. Cross (1991; Cross & Vandiver, 2001) posited the importance of race salience in comprehending nigrescence attitudes. The two-factor higher order model tested the presence of second order factors, labeled *Pre-Discovery* and *Discovery*. The Pre-Encounter identities (Assimilation, Self-Hatred, and Miseducation) all describe a non-Black RGO, whereas the post-Encounter identities (Anti-White, Afrocentric, and Multiculturalist) depict a pro-Black RGO.

Convergent Validity Hypotheses

We selected the MIBI (Sellers et al., 1998) because its subscales reflect constructs similar to those on the CRIS. Both nigrescence theory (Cross, 1991; Cross & Vandiver, 2001) and the Multidimensional Model of Racial Identity (MMRI; Sellers, Rowley, Chavous, Shelton, and Smith, 1997) address the importance of race and contend that individuals have multiple identities. In addition, Sellers et al. (1997) used similar scale development procedures in developing the MIBI.

Race salience. On the CRIS, the salience of race varies by subscale. The Anti-White and Afrocentric subscales stress the importance of race, but the Assimilation subscale does not. Race is an important but not limiting focus of the Multiculturalist subscale. Similarly, the Centrality and Nationalist subscales of the MIBI stress the importance of race, whereas the Assimilation and Humanist subscales deemphasize its importance. Another MIBI sub-

Table 3
Structure Coefficients From Principal-Axis Extraction/Oblimin Rotation of CRIS Scores From Study 1

Subscale items and item nos. ^a	I PM	II IBN	III IMCI	IV PSH	V PA	VI IEAW	h ²
PM69—Focus on racial protest, not on hard work	.78	.09	-.01	-.12	.15	-.08	.62
PM53—Too lazy to see opportunities in front of them	.77	.08	-.12	-.21	.27	-.11	.63
PM66—Quick to turn to crime as solution to problems	.77	.21	.02	-.18	.14	.03	.59
PM60—Too lazy to take advantage of opportunities	.76	.12	-.11	-.18	.24	-.03	.60
PM47—Can't get ahead because turn to drugs to escape	.68	.16	.09	-.20	.12	.05	.48
PM33—Emphasis on good time, not hard work	.67	.13	-.20	-.13	.22	-.03	.49
PM22—Trouble getting jobs due to bad work habits	.62	.12	-.10	-.18	.25	-.01	.41
PM18—Glamorize drug trade	.58	.16	.10	-.09	.02	.16	.39
PM41—Focus on "getting over," not on hard work	.58	.02	-.05	-.13	.38	-.10	.41
PM11—Solve problems by using drugs	.49	.07	.21	-.09	.11	.10	.31
PM44—Are own worse enemy	.44	.12	.03	-.22	.10	-.02	.21
IBN64—Embrace an Afrocentric perspective to be free	.12	.76	-.03	-.16	-.14	.26	.59
IBN59—Think Afrocentrically to solve problems	.13	.73	-.01	-.12	-.12	.22	.53
IBN43—Guide daily lives by Afrocentric principles	.12	.71	.06	-.14	-.14	.25	.52
IBN17—Come from an Afrocentric perspective	.09	.57	.01	-.05	-.22	.30	.36
IBN24—Use Afrocentric view to solve race problems	.21	.51	-.18	-.06	-.02	.22	.33
IBN68—Afrocentricity used to develop unique identity	-.07	.45	.22	-.14	-.27	.16	.30
IBN34—Spend time as Black Nationalist on Black causes	-.02	.43	.13	.07	-.30	.22	.26
IBN30—Take hard line as other Afrocentric thinkers	.10	.41	.14	-.04	-.27	.28	.25
IBN56—Use Afrocentric view to think about Blacks only	.20	.40	-.28	-.08	-.05	.16	.27
IBN62—Do for ourselves as Black Nationalists to survive	.09	.29	.19	-.05	-.16	.09	.13
IBN5—Empower ourselves as Black Nationalists	.07	.22	.18	.01	-.02	-.15	.11
IMCI61—Embrace an inclusive society	.03	-.04	.64	-.02	.09	-.12	.43
IMCI54—Friendly relations all cultural groups	.02	-.12	.61	-.01	.11	-.28	.42
IMCI26—Have a Black identity & multicultural view	-.02	.01	.57	.01	-.04	-.17	.34
IMCI38—Celebrate Black identity & respect all cultures	-.06	.06	.55	-.04	.02	-.08	.32
IMCI46—Support coalitions with other cultural groups	-.09	.05	.54	-.09	-.05	-.01	.32
IMCI57—Build bridges with other cultural groups	.05	.11	.49	-.01	.01	-.13	.25
IMCI10—Accept people from all cultural backgrounds	.12	-.12	.48	.01	.06	-.30	.31
IMCI23—Blackness strengthened by multicultural work	.10	.17	.39	.10	.01	-.09	.20
PSH45—Privately have negative feelings about being Black	.17	.04	.04	-.84	.10	.10	.71
PSH65—Have negative feelings about being Black	.11	.07	.09	-.82	.06	.05	.68
PSH67—Down on self because Black	.18	.14	-.07	-.76	.04	.12	.58
PSH25—Aspects about being Black make me feel bad	.24	.08	-.02	-.69	.08	.01	.49
PSH15—Struggle with negatives feelings about being Black	.14	-.04	.02	-.63	.06	.01	.40
PSH31—Do not feel good about self when look in mirror	.17	.20	-.01	-.60	.03	.04	.38
PSH7—Hate being Black	.11	.03	.06	-.52	-.02	.10	.28
PA63—Think of self primarily as American	.20	-.16	-.01	-.02	.82	-.17	.67
PA58—Am an American, not a racial person	.23	-.13	-.01	-.05	.79	-.17	.62
PA40—First an American, second a racial person	.05	-.24	-.01	-.06	.76	-.11	.61
PA52—Stress American experiences, not racial ones	.20	-.14	-.04	-.14	.70	-.18	.50
PA29—Label identity as American, not African American	.12	-.24	-.14	-.15	.65	-.10	.46
PA20—Do not categorize people by racial groups	.25	-.05	.09	-.02	.57	-.15	.35
PA13—Concerned with being American	.16	-.06	.18	.06	.54	-.15	.35
PA4—Believe in color-blind society	.31	-.05	.03	-.06	.40	-.23	.23
IEAW36—Must destroy White people	.04	.18	-.13	-.10	-.14	.76	.58
IEAW12—Must hate White community	.05	.31	-.17	-.06	-.23	.75	.59
IEAW51—Must hate White people	.03	.23	-.08	-.11	-.07	.72	.53
IEAW19—Believe Whites are mean	.04	.42	-.28	-.08	-.18	.72	.61
IEAW3—Have feelings of hatred for all Whites	.01	.26	-.27	-.07	-.32	.71	.56
Eigenvalues	6.32	5.69	3.18	2.86	2.10	1.42	
% of variance	12.64	11.37	6.36	5.73	4.20	2.84	
α	.89	.79	.72	.87	.87	.85	

Note. $N = 293$. h^2 refers to communalities. Numbers in bold indicate items that loaded high on the same factor but not on other factors. CRIS = Cross Racial Identity Scale; PA = Pre-Encounter Assimilation; PM = Pre-Encounter Miseducation; PSH = Pre-Encounter Self-Hatred; IEAW = Immersion-Emersion Anti-White; IBN = Internalization Black Nationalist; IMCI = Internalization Multiculturalist Inclusive.

^a Paraphrases of CRIS items.

scale, Oppressed Minority, extends the importance of race beyond Blacks to other oppressed minority groups.

We hypothesized positive relationships between IEAW and IA and the Centrality and Nationalist subscales of the MIBI because

all emphasize the importance of race. In addition, we predicted a significant inverse relationship between PA, which downplays race, and the Centrality subscale of the MIBI, which emphasizes the importance of race. We expected the relationships between PA

and the Assimilation and Humanist subscales of the MIBI to be positive, as all three subscales deemphasize race. In addition, we hypothesized IEAW to have an inverse relationship with the MIBI's Humanist subscale because of the differential focus on race salience. We expected IMCI to have a positive relationship with the Humanist and Oppressed Minority subscales of the MIBI. As indicated previously, .001 was the critical alpha for significance, and we interpreted only correlations of at least $|\cdot30|$ (i.e., at least 9% shared variance).

Racial evaluation. Racial importance is also reflected in the affective and evaluative views depicted in the CRIS's Self-Hatred and Miseducation subscales and the Private Regard and Public Regard subscales of the MIBI. The two Pre-Encounter subscales characterize African Americans negatively, whereas positive evaluations of Blacks result in higher scores on the MIBI subscales. We hypothesized an inverse relationship between the MIBI's Public Regard subscale (what others are believed to think about Blacks) and PM (negative stereotypes attributed to Blacks as a group). We hypothesized PSH, which reflects a personal hatred of being Black, to have an inverse relationship with the MIBI's Private Regard subscale (a personal evaluation of Blacks).

Discriminant Validity Hypotheses

Social desirability. A major concern for social attitude self-report measures, such as the CRIS, is the transparency of the negative (e.g., I don't like my skin color or I hate Whites) and positive (e.g., I embrace a multicultural perspective) aspects of the items. The concepts of diversity and multiculturalism have become a regular part of America's discourse and are often used to describe what is and what is not desirable (Blaine, 2000). As a result, it is sometimes difficult to separate an individual's personal views of multiculturalism from the purported ideals of American society. Helmes (2000) recommended that theoretical definitions of social desirability (one-factor vs. two-factor) need to guide the use of this construct. Sackeim and Gur (1979) distinguished self-deception (the lack of equivalence between conscious awareness and self-report) from other-deception (impression management). Both constructs have been linked to the concept of social desirability. As an initial test that the CRIS is not a measure of desirable responding, we compared CRIS subscale scores with both types of social desirability. We hypothesized that the CRIS subscale scores would not be substantially correlated with self-deception or impression management as measured by the Balanced Inventory for Desirable Responding (BIDR; Paulhus, 1984, 1991).

PI. As indicated earlier, PI is not a component of most nigrescence identities. The exception is the PSH identity, in which a negative RGO is integrated into the self-concept, resulting in self-hatred because of racial affiliation (Cross, 1991, 1995; Cross & Vandiver, 2001). We proposed two PI hypotheses using a personality measure and a global self-esteem measure: (a) We hypothesized PSH to have a positive relationship to the Big Five Inventory's (BFI; John, Donahue, & Kentle, 1991) Neuroticism subscale, a measure of emotional stability (John & Srivastava, 1999); and (b) we expected PSH to have a significant and meaningful inverse relationship to global self-esteem, as measured by the RSES (Rosenberg, 1965). We did not expect the other CRIS subscales to have substantial relationships to the BFI subscales or to the RSES scores.

Method

Participants

Participants in Study 2 were 336 African American students (119 males and 212 females, 5 unspecified), attending a predominantly White university located in the Northeast. Participants' ages ranged from 17 to 59 years ($M = 20.68$ years, $SD = 3.96$), and their GPA, with 4.00 as the ceiling, ranged from 0.50 to 4.00 ($M = 2.77$, $SD = 0.57$). Ninety-three percent ($n = 313$) were pursuing a baccalaureate degree, and 6% ($n = 20$) were pursuing a graduate degree (3 unspecified). Ninety percent of the students characterized the social class of their community as either working ($n = 165$) or middle ($n = 136$) class; approximately 5% described their community as lower class, and 3% described theirs as upper class. Approximately 66% of the participants reported that their maternal parent had graduated from high school ($n = 54$), attended some college ($n = 105$), or graduated from college ($n = 61$); 65% reported a similar educational pattern for their paternal parent (graduated from high school, $n = 72$; attended some college, $n = 75$; graduated from college, $n = 72$).

Instruments

Each packet was composed of the following measures: the CRIS (Vandiver et al., 2000), the MIBI (Sellers et al., 1998), the BFI (John et al., 1991), the RSES (Rosenberg, 1965), the BIDR (Paulhus, 1984), and a background information sheet. The sequence of the measures in the packet was counterbalanced to control for order effects.

CRIS. The CRIS for Study 2 consisted of 52 items across eight subscales. Six subscales, containing 39 items, represented the nigrescence identities under examination: Pre-Encounter Assimilation (PA; seven items), Pre-Encounter Miseducation (PM; five items), Pre-Encounter Self-Hatred (PSH; six items), Immersion-Emersion Anti-White (IEAW; six items), Internalization Afrocentric (IA; six items), and Internalization Multiculturalist Inclusive (nine items). Thirty-five of the thirty-nine items were unchanged from Study 1, two items were new, and two had been used on earlier versions of the CRIS. We also included two experimental subscales (12 items) and one filler item in the CRIS. The content of the IA subscale is presented above. All other subscales were as described in Study 1, and as before, items were rated on a 7-point scale. We obtained subscale scores by summing the ratings on items for each subscale and dividing by the number of items on the subscale. The Flesch-Kincaid Grade Level Score indicated that the readability of the CRIS was Grade 6.7.

MIBI. The 56-item MIBI (Sellers et al., 1998) is designed to measure the racial identity of African Americans across the dimensions of Centrality, Ideology, and Regard. MIBI items are rated on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), and subscale scores are created by reverse coding designated items and summing across all items within each subscale.

The Centrality dimension is represented by a single eight-item scale and measures the extent to which being African American is central to the definition of self. The Ideology dimension is composed of 36 items divided into four 9-item subscales (Assimilation, Humanist, Nationalist, and Oppressed Minority) that characterize how African Americans "should live and interact with society" (Sellers et al., 1998, p. 27). The Assimilation subscale measures the similarities between African Americans and the rest of the American society, the Humanist subscale assesses the commonalities of all humans, the Oppressed Minority subscale measures the connections believed to exist between African Americans and other oppressed minority groups, and the Nationalist subscale examines the uniqueness of being Black. The third dimension, Regard, consists of two 6-item measures: Private Regard and Public Regard. The Private Regard subscale measures the personal views that a person holds about being Black, whereas the Public Regard subscale characterizes how a person believes others view African Americans.

Sellers et al. (1997) tested the construct validity of the MIBI and reported Cronbach's alphas of .60 to .70 for MIBI subscale scores. Intercorrelations among the MIBI subscales ranged from |.05| to |.57| and were reported to be in the expected directions. Separate exploratory factor analyses supported the presence of the Centrality, Ideology, and Private Regard factors, but the Public Regard factor was not supported (Sellers et al., 1997). Sellers et al. (1998) revised the Regard items and reported another factor analysis that supported both Regard subscales as separate factors. Criterion-related external validity was based on correlations between MIBI subscales and race-related behaviors such as having an African American friend, having contact with Whites and Blacks, and enrolling in a Black studies course.

BFI. The BFI (John et al., 1991) consists of 44 items and measures the Big Five personality traits, which are representative of personality at the broadest level of abstraction. In contrast to the NEO Personality Inventories (the NEO-PI-R and the NEO-Five Factor Inventory; Costa & McCrae, 1992), the BFI measures the core features of the Big Five dimensions (John & Srivastava, 1999). All items consist of short phrases based on the trait adjectives known to be prototypical markers of the Big Five (John, 1989, 1990). The five subscales are Extraversion (8 items; e.g., assertive and energetic), Agreeableness (9 items; e.g., cooperative and trustful), Conscientiousness (9 items; e.g., orderly and responsible), Neuroticism (9 items; e.g., easily upset and not calm), and Openness (10 items; e.g., independent-minded and imaginative). All items are rated on a 5-point scale ranging from 1 (*disagree strongly*) to 5 (*agree strongly*), and subscale scores are created by reverse scoring the specified items and then summing the ratings for the items on each subscale.

Reliability estimates for scores on the BFI scales have been reported to range from .75 to .90 and are comparable with similar measures (NEO-FFI; Costa & McCrae, 1992, and the 100-item trait descriptive adjectives [TDA]; Goldberg, 1992) of the Big Five dimensions (John et al., 1991; John & Srivastava, 1999). In addition, most of the intercorrelations between the five scales have been below |.20|, and correlations between scales measuring similar constructs on the BFI, the NEO-FFI, and the TDA have been above .70. The factor structures of both the English and Spanish versions of the BFI have been supported by using both exploratory and confirmatory factor analyses (Benet-Martinez & John, 1998; John et al., 1991). The comparative fit index for the BFI was reported to be .95, comparable with .92 for the NEO-FFI and .95 for the TDA (John & Srivastava, 1999).

RSES. The RSES (Rosenberg, 1965) is a 10-item scale that measures global self-esteem on a 4-point rating scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). After reverse scoring half of the items, the ratings are summed across the 10 items. Higher scores indicate higher levels of self-esteem. Reliability estimates for the scores on the RSES have been in the .70 to .90 range (Wylie, 1989). The factor structure of the RSES has varied across studies (e.g., Hensley, 1977; Kaplan & Pokorny, 1969; O'Brien, 1985; Vandiver & Fhagen-Smith, 1998). Vandiver and Fhagen-Smith recommended that the RSES's factor structure be examined each time the scale is used to ensure accurate interpretation of its scores. An exploratory factor analysis of the RSES in this study identified a one-factor structure.

BIDR. The BIDR (Paulhus, 1984, 1991) consists of 40 items and taps two aspects of social desirability, which are measured on two 20-item subscales: Impression Management (IM) and Self-Deceptive Enhancement (SDE). Each item is rated on a 7-point scale (1 = *not true*, 4 = *somewhat true*, 7 = *very true*). Half the items on each subscale are negatively worded and must be reverse scored before computing subscale scores. Higher scores represent greater levels of social desirability.

Paulus (1991) provided a summary of the reliability and validity of the BIDR, which was based on both adults and college students. Alpha coefficients have ranged from .68 to .80 for SDE scores and from .75 to .86 for IM scores. The validity of the two subscales has been substantiated by the formation of separate factors in factor analyses, and correlations be-

tween the two subscales ranging from .05 to .40. SDE was reported to have moderate, positive correlations with the Byrne R-S scale (Byrne, 1964), the Defense Mechanism Inventory (Ihlevich & Gleser, 1986) and the Ways of Coping scale (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). IM scores were reported to be correlated with the Eysenck's Lie Scale (Eysenck & Eysenck, 1964, 1975) and MMPI's Lie scale (Meehl & Hathaway, 1946).

Procedures

Mass distribution of flyers, the use of large posters, key contacts, and face-to-face recruiting were used to attract a diverse sample of African American students. Because of the amount of time (approximately 1 hr) involved in completing the research packet, a monetary incentive (\$10) was offered to encourage participation and was paid on the completion of the packet. Four African Americans (two female undergraduates, one male graduate student, and one male faculty member) recruited students and administered the questionnaire. The survey packet was administered to groups at different sites on campus (e.g., student center, classrooms, residence halls).

Results

Preliminary Analyses

We used scores for 309 of the 336 participants in statistical analyses. We did not include 13 cases because of random missing data, and no systematic nonresponse to specific items was identified. Using Malhanobis distance (Tabachnick & Fidell, 1996), we identified 14 additional cases as extreme outliers ($p < .001$), and we did not include them in further analyses. The elimination of these cases did not alter the demographic features of the sample as described in the *Participants* section. With only 39 items under consideration and moderate-to-high communalities, a sample size of 300 was adequate for conducting the confirmatory factor analyses (Comrey, 1988; Floyd & Widaman, 1995; MacCallum et al., 1999).

Descriptive statistics for the CRIS subscales are presented in Table 4. IEAW was correlated to both Internalization subscales, sharing 16% of the variance with IA and 14% with IMCI. Respondents who scored high on anti-White sentiments endorsed an Afrocentric worldview and were less likely to endorse a multicultural ideology. All but one of the alpha estimates for scores on the CRIS subscales were in the .80 range. To increase equivalence in subscale format, we used reliability analyses to reduce the number of items in each subscale to five. We removed two items from PA, four items from IMCI, and one item each from PSH, IEAW, and IA. The removal of these items resulted in a 30-item scale, with five items per subscale. The alpha estimates based on five items ranged from .78 to .89 (see Table 4).

Structural Validity

Confirmatory Factor Analysis Models

We conducted confirmatory factor analyses to identify which model best characterized the CRIS. We used a competing model strategy (MacCallum, Wegener, Uchino, & Fabrigar, 1993) by testing the proposed six-factor model against seven other models: one-factor, two-factor, three-factor, four-factor, five-factor, and two higher order models. We tested a one-factor CRIS model because it represented the most reduced model of CRIS scores.

Table 4
Descriptive Statistics of CRIS Scores From Study 2

Subscale	1 (7) ^a	2 (5)	3 (6)	4 (6)	5 (6)	6 (9)	M	SD	α	α ^b
1. PA	—	.24*	.13	-.16	-.15	.17	2.72	1.21	.83	.85
2. PM	.28*	—	.17	.04	.19*	-.05	2.74	1.12	.78	.78
3. PSH	.09	.21*	—	.13	.08	-.06	1.95	1.10	.88	.89
4. IEAW	-.16	.06	.12	—	.42*	-.35*	2.03	1.08	.90	.89
5. IA	-.19*	.16	.11	.41*	—	-.20*	3.89	1.08	.82	.83
6. IMCI	.22*	-.08	-.10	-.37*	-.17	—	5.59	.90	.86	.82

Note. N = 309. Correlations below diagonal are based on 39 items, and correlations above diagonal are based on 5 items per subscale. CRIS = Cross Racial Identity Scale; PA = Pre-Encounter Assimilation; PM = Pre-Encounter Miseducation; PSH = Pre-Encounter Self-Hatred; IEAW = Immersion–Emersion Anti-White; IA = Internalization Afrocentric; IMCI = Internalization Multiculturalist Inclusive.

^a Parenthetical numbers indicate number of items on subscale. ^b Reliability estimates based on five items per subscale.

* p < .001.

The two-factor model depicted the global dimensions of pro-American, characterized by the Pre-Encounter subscales, and pro-Black, represented by the Anti-White (IEAW), Afrocentric (IA), and Multiculturalist (IMCI) subscales. The three-factor model examined the CRIS by nigrescence stage constructs: Pre-Encounter, Immersion–Emersion, and Internalization. The four-factor model tested the presence of the pro-race and anti-race constructs. Pro-White was represented by PA items, and anti-White was represented by items on the Anti-White subscale. IA and IMCI items represented the pro-Black construct, and the anti-Black construct was reflected in the PM and PSH items. The five-factor model represented the exploratory factor analysis five-factor structure identified by Vandiver et al. (2001), with IEAW and IA representing one factor instead of two. The six-factor model represented the proposed scale structure. One second order model tested a single higher order factor, labeled *Race Salience*, as the link among the six subscales. The other higher order model tested the presence of two second order constructs: Pre-Discovery, consisting of all the Pre-Encounter subscales (PA, PM, & PSH), and Discovery, consisting of post-Encounter subscales (IEAW, IA, & IMCI). For all factor models, relations among the latent variables were allowed to covary.

Confirmatory Factor Analysis Results

Using EQS for Windows 5.3 (Bentler & Wu, 1995), we conducted confirmatory factor analysis on a covariance matrix of the CRIS scores. We used maximum-likelihood estimation with the Satorra–Bentler scaled chi-square (Satorra & Bentler, 1994) to correct for non-normality in the data by rescaling the goodness-of-fit chi-squares and creating robust standard errors (Chou & Bentler, 1995; Kline, 1998; Tabachnick & Fidell, 1996). We assessed the goodness of fit of the data to the models by using the chi-square statistic (χ^2), the chi-square to degrees of freedom (χ^2/df) ratio, the comparative fit index (CFI), and the root-mean-square error of approximation (RMSEA) values, based on a 90% confidence interval. Table 5 presents the fit of the models to the data. None of the fit criteria supported the null, one-factor, two-factor, three-factor, four-factor, and five-factor models. The χ^2 statistics, a test of the interrelatedness of item scores (Tabachnick & Fidell, 1996), supported the rejection of these models. In addition, the χ^2/df ratios, an indicator of whether a sufficient number of parameters has been specified, for these same models ranged from 2.53 to 10.77, which are higher than the recommended ideal value between 1.00 and 2.00 (Hair, Anderson, Tatham, & Black,

Table 5
Fit Indices for the CRIS Derived From Confirmatory Factor Analyses (Maximum-Likelihood Robust)

Model	χ^2 s-b	df	χ^2/df	CFI robust	RMSEA (90% CI)
1. Null	4686.64	435	10.77		
2. 1-Factor	2975.43*	405	7.35	.29	.149, .158
3. 2-Factor (pro-White, pro-Black)	2202.69*	404	5.45	.50	.125, .134
4. 3-Factor (Stage 1, Stage 2, Stage 3)	1918.36*	402	4.77	.58	.114, .124
5. 4-Factor (pro- & anti-White, pro- & anti-Black)	1358.78*	399	3.41	.73	.091, .101
6. 5-Factor (PA, PM, PSH, IEAW, IA, IMCI)	1000.52*	395	2.53	.83	.072, .083
7. 6-Factor (PA, PM, PSH, IEAW, IA, IMCI)	604.99*	390	1.55	.94	.043, .055
8. 1-Factor (2nd order: Race Salience)	656.08*	400	1.64	.93	.046, .058
9. 2-Factor (2nd order: Pre-Disc. vs. Disc.)	651.96*	400	1.63	.93	.046, .058

Note. N = 309. CRIS = Cross Racial Identity Scale; s-b = Satorra–Bentler; CFI = comparative fit index; RMSEA = root-mean-square error of approximation; CI = confidence interval; PA = Pre-Encounter Assimilation; PM = Pre-Encounter Miseducation; PSH = Pre-Encounter Self-Hatred; IEAW = Immersion–Emersion Anti-White; IA = Internalization Afrocentric; IMCI = Internalization Multiculturalist Inclusive; Pre-Disc. = Pre-Discovery; Disc. = Discovery.

* p < .001.

1995). CFIs for these models all fell below the recommended value of .95, which was interpreted as supporting an acceptable fit of data to model (Hu & Bentler, 1998). Finally, the .90 confidence intervals of the RMSEAs, the extent of residual variance explained by a model, for the null through the five-factor models were greater than the suggested interpretive guideline of a close fit (less than .05; MacCallum, Browne, & Sugawara, 1996). The six-factor and both higher order models described the data better than the other models did. All three models approached an acceptable fit, evidenced by the robust CFIs ($> .90$), fair-to-close fitting RMSEA values (between .04 and .06), and significant decreases in χ^2 and χ^2/df ratio values in comparison with the other models.

The standardized solutions for the two higher order models are depicted in Figure 1. At the item level, the standardized solutions for the six-factor and higher order models are similar. On the six-factor model, the unstandardized estimates for the measurement equations of the items were significant at .001. Factor intercorrelations of the six-factor model ranged from [.06] to [.46] ($Mdn = .16$), with 2 of the 15 correlations significant at .001 and above [.30]. IEAW shared 21% of the variance with IA and 16% with IMCI. None of the unstandardized estimates for the first order factors loading on the second order factor of Race Salience were significant at .001. In contrast, all of the unstandardized estimates for the first order factors loading on the hypothesized second order factors (Pre-Discovery vs. Discovery) were statistically significant at .001.

Convergent and Discriminant Validity

Table 6 contains the means, standard deviations, and reliability estimates for the BFI, BIDR, MIBI, and RSES scores. The subscale intercorrelations between these measures and the CRIS subscales are also presented in Table 6.

Convergent Validity

Race salience. Eight of the ten race salience hypotheses were supported (i.e., correlations of at least [.30] and significant at the .001 level). IA and IEAW had moderate, positive correlations with the MIBI's Nationalism scale, and we found an inverse relationship between IEAW and the MIBI's Humanist subscale. In contrast, scores on PA and IMCI subscales were positively correlated with scores on the MIBI's Humanist subscale. Further, IMCI was the only CRIS subscale to correlate with the MIBI's Oppressed Minority scale, indicating that individuals who preferred a culturally inclusive world also acknowledged a connection to members of oppressed minority groups. As expected, those who rated themselves high on PA also rated themselves high on the MIBI's Assimilation scale. In contrast, we found a negative relationship between PA and the MIBI's Centrality scale. Race was less central to the lives of those who rated themselves high on the importance of an American identity. We found an unpredicted inverse relationship between PA and the MIBI's Nationalist scale. The more assimilated Black individuals rated themselves, the less likely they were to rate themselves high on the MIBI's Black Nationalism scale.

Racial evaluation. One of the two racial evaluation hypotheses was supported. We found an inverse relationship between PSH and Private Regard, which shared 12% of the variance. However, PM was not related to the Public Regard subscale of the MIBI.

Discriminant Validity

Social desirability. No CRIS subscales obtained correlations above [.30] with either IM or SDE, although two correlations (IMCI & IM and PSH & SDE) did achieve the significance level of the study.

PI. Four correlations between CRIS and BFI subscales were significant at .001, but none was above [.30]. As hypothesized, however, PSH's negative correlation with RSES score met the interpretation criteria ($r^2 = .12$). Individuals who rated themselves higher on self-hatred were less likely to regard themselves as having high self-esteem.

Discussion

The CRIS (Vandiver et al., 2000) is a six-factor instrument that was designed to measure six of the eight identities in the expanded nigrescence model (Cross & Vandiver, 2001; Worrell et al., 2001). The exploratory factor analysis and confirmatory factor analysis results support a six-factor structure for the CRIS and indicate that the reliability estimates of scores on the six factors are in the moderate to high range. The results also provide strong support for the presence of a two-factor higher order model: Pre-Discovery and Discovery. The distinction between Pre-Encounter and post-Encounter identities suggest that the Encounter stage (Cross, 1971, 1991, 1995) appears to result in a sea change in Black racial identity.

CRIS Subscale Intercorrelations

Both the observed correlations and the factor intercorrelations for the CRIS subscale scores in Study 2 were generally low. Particularly noteworthy is the lack of a relationship between IMCI and PA. Equally noteworthy is the delineation of three Pre-Encounter identities that share an overarching non-Black RGO. Similarly, although the Internalization subscales are based on Black self-acceptance, the results indicated that they are measuring different constructs. However, the moderate relationships between IEAW and the Internalization subscales need to be examined further. Despite our best efforts, these scales continued to be correlated above .30. It is conceivable that in a racially polarized society like the United States, it may not be possible for African Americans to have a Black RGO without some concomitant anti-White sentiment. Results from further studies may help to clarify this issue.

Structural Validity

Factor analyses indicated that two different factor structures supported the proposed subscale structure of the CRIS. Exploratory factor analysis provided preliminary support for the six-factor structure, whereas confirmatory factor analysis supported the six-factor model and the two-factor higher order model. Of all the models tested, the two-factor higher order model of the CRIS subscales was most tenable. It supported the six-factor structure of the CRIS and a higher order structure that is in keeping with the expanded nigrescence model (Cross & Vandiver, 2001).

The three Pre-Encounter identities appear to reflect a common construct labeled *Pre-Discovery* (i.e., the lack of a positive Black RGO). Anti-White, Afrocentric, and Multiculturalist load on Dis-

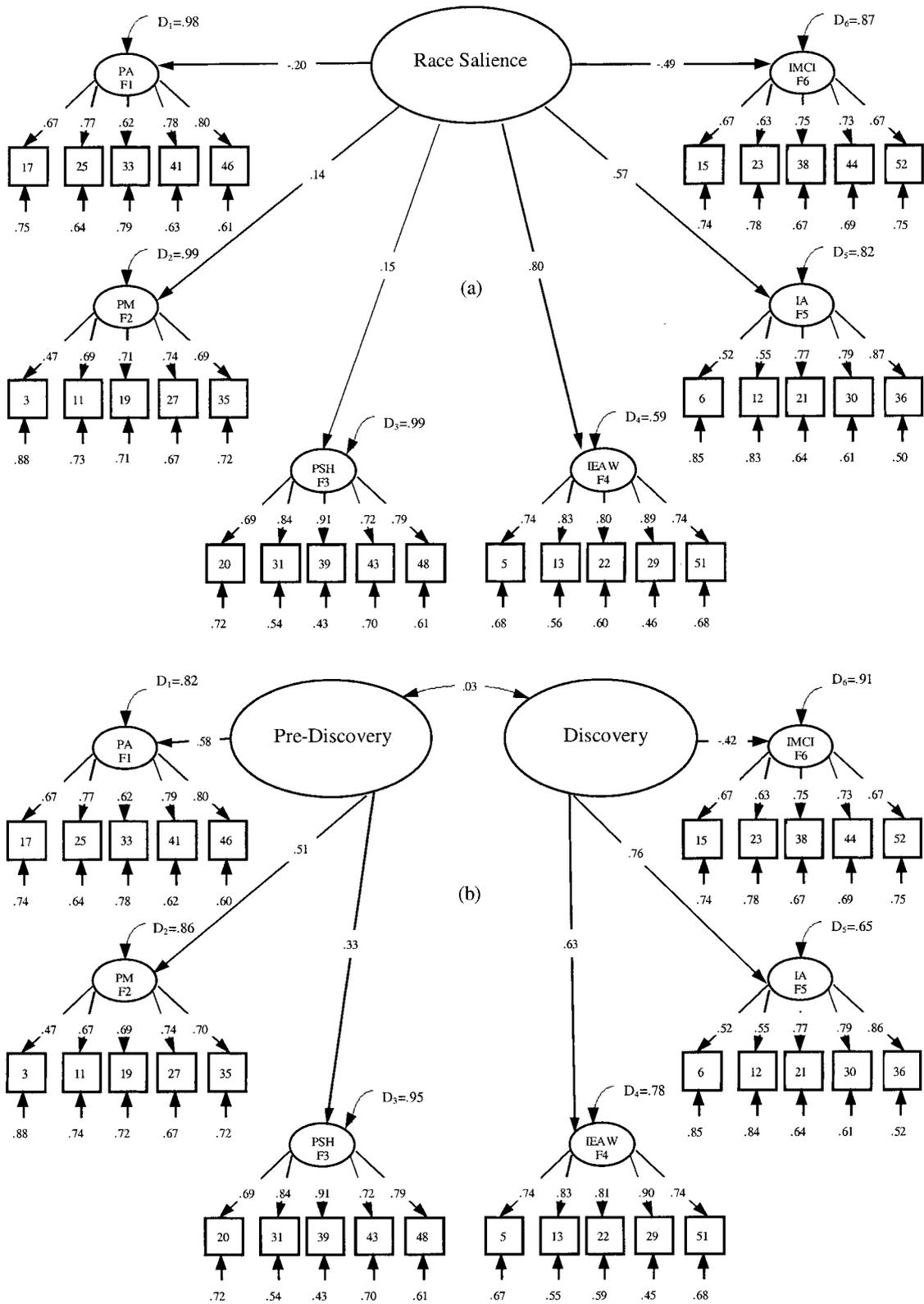


Figure 1. Standardized coefficients derived by confirmatory factor analyses (maximum-likelihood robust) for (a) one-factor and (b) two-factor higher order models of the Cross Racial Identity Scale (CRIS; $N = 309$). PA = Pre-Encounter Assimilation ($\alpha = .85$); PM = Pre-Encounter Miseducation ($\alpha = .79$); PSH = Pre-Encounter Self-Hatred ($\alpha = .89$); IEAW = Immersion-Emersion Anti-White ($\alpha = .90$); IA = Internalization Afrocentric ($\alpha = .83$); IMCI = Internalization Multiculturalist Inclusive ($\alpha = .82$). The numbers in the squares represent CRIS item order, and alpha coefficients are construct reliability estimates based on factor loadings from the two-factor higher order model.

Table 6
Correlations Between CRIS Subscales and Other Major Variables in Study 2

Scale and subscale	PA	PM	PSH	IEAW	IA	IMCI	<i>M</i> ^a	<i>SD</i>	α
MIBI									
Centrality	-.40 ^b	-.25	-.13	.12 ^c	.21 ^c	.05	5.28	1.00	.78
Private Regard	-.22	-.24	-.35 ^b	-.03	.05	.16	6.50	0.64	.58
Public Regard	.23	.10 ^c	-.14	-.13	-.11	.07	3.17	0.97	.75
Assimilation	.41 ^b	.19	.01	-.23	-.11	.29	4.75	0.74	.59
Humanist	.33 ^b	.13	-.01	-.30 ^b	-.22	.32 ^b	5.04	0.78	.60
Oppressed Minority	-.08	-.10	.01	-.08	.07	.30 ^b	5.19	0.84	.72
Nationalist	-.31 ^d	-.03	.01	.54 ^b	.59 ^b	-.19	4.30	0.81	.69
BIDR									
SDE	-.05	-.09	-.23	-.01	.06	.09	4.37	0.59	.61
IM	.01	-.08	-.08	-.11	.07	.17	3.37	0.88	.80
BFI									
Extraversion	-.03	.07	-.01	-.07	.02	.18	3.44	0.80	.82
Agreeableness	-.06	-.10	-.08	-.19	.01	.19	3.72	0.62	.73
Conscientiousness	-.05	-.13	-.05	-.10	.03	.20	3.73	0.67	.79
Neuroticism	.03	.05	.17 ^c	.11	.02	-.12	2.90	0.76	.78
Openness	.01	-.12	.10	-.01	.08	.21	3.94	0.57	.73
RSES	-.23	-.12	-.34 ^b	-.12	-.01	.16	3.50	0.44	.83

Note. *N* = 309. Correlations of .19 and above are significant at .001. CRIS = Cross Racial Identity Scale; PA = Pre-Encounter Assimilation; PM = Pre-Encounter Miseducation; PSH = Pre-Encounter Self-Hatred; IEAW = Immersion–Emersion Anti-White; IA = Internalization Afrocentric; IMCI = Internalization Multiculturalist Inclusive; MIBI = Multidimensional Inventory of Black Identity; BIDR = Balanced Inventory of Desirable Responding; SDE = Self-Deceptive Enhancement; IM = Impression Management; BFI = Big Five Inventory; RSES = Rosenberg Self-Esteem Scale.

^a Mean scores on the MIBI and BIDR are based on 7-point scale, mean scores on the BFI are based on a 5-point scale, and mean scores on the RSES are based on 4-point scale. ^b Predicted correlation supported. ^c Predicted correlation not supported. ^d Relationship not predicted.

covery and appear to reflect a positive Black RGO. We designed IEAW and IA to measure strong anti-White and pro-Black sentiments, respectively, and both load positively on Discovery. In contrast, IMCI loads negatively on the Discovery factor, supporting the theoretical construct of a Multiculturalist. Multiculturalists neither accept only Blacks nor do they reject Whites; rather they accept a broad range of cultural groups. Taken together, the loadings of IEAW, IA, and IMCI on the Discovery construct appear to reflect cultural salience.

Convergent Validity

The initial convergent validity findings of the CRIS are promising, with five of the six subscales receiving support (see Table 6). Assimilation, Self-Hatred, Anti-White, Afrocentric, and Multiculturalist all had meaningful and interpretable patterns of relationships with similar subscales from the MIBI (Sellers et al., 1998).

Race salience. Eight of the ten race salience hypotheses were supported (see Table 6). As expected, the construct validity of PA was supported: It appears to reflect the importance of American status through assimilation—the deemphasis of racial characteristics, specifically the importance of being an African American. We found an unexpected inverse relationship between PA and the Nationalist subscale of the MIBI. However, the relationship is congruent with the expanded nigrescence theory (Cross & Vandiver, 2001), as PA reflects a non-Black RGO and Nationalist represents a pro-Black RGO.

Individuals who expressed anti-White sentiments on the CRIS were also likely to have a Black Nationalist ideology, as measured by the MIBI. Nigrescence theory (Cross, 1991; Cross & Vandiver,

2001) does not assume that pro-White attitudes are equivalent to anti-Black attitudes. However, given that Anti-White sentiment occurs most strongly in the Immersion–Emersion stage, a stage in which everything Black is romanticized, the relationship between anti-White attitudes and Black Nationalist attitudes is not surprising. This relationship between CRIS and MIBI subscales is also present among CRIS subscales.

Of the two hypotheses made for IA, only one was supported. As predicted, both IA and MIBI's Nationalist subscale appear to be measuring similar constructs—the reflection of a unique African American identity. However, IA was not related to the MIBI's Centrality subscale. Sellers et al. (1998, p. 25) noted that “racial centrality refers to the extent to which a person normatively defines himself or herself with regard to race.” On the other hand, IA measures the belief that Afrocentric values and principles are useful in solving the problems of African Americans. IA items delineate a unique Black philosophy, whereas Centrality items affirm a more general pro-Black orientation. Thus, the lack of a relationship between the two measures may simply be a reflection of the difference in content. Finally, as hypothesized, IMCI was related to both the MIBI's Humanist and Oppressed Minority subscales and appears to reflect a common core of accepting other cultural groups, including oppressed minorities who are not Black.

Racial evaluation. As hypothesized, the PSH construct was supported. Individuals who reported hating being Black on the CRIS were less likely to have a positive view about being Black (Private Regard). The hypothesis for PM was not supported. Holding stereotypical views of Blacks (PM) did not seem to be related to one's opinions of the views that others have of Blacks (Public

Regard). In fact, PM did not have correlations above $|\text{.25}|$ with any of the MIBI subscales. The Miseducation subscale appears to be unique and in need of greater research scrutiny.

Discriminant Validity

Discriminant validity of the CRIS was supported by a general pattern of low intercorrelations between CRIS subscales and measures of social desirability (BIDR; Paulhus, 1984, 1991), personality (BFI; John et al., 1991), and global self-esteem (RSES; Rosenberg, 1965). The one relationship that did emerge was in keeping with the nigrescence theory.

Social desirability. As expected, none of the CRIS subscales was meaningfully correlated with either IM or SDE. In spite of these findings, it is important to continue to monitor the potential existence of social desirable responses to CRIS items. An examination of the means and standard deviations on CRIS subscales indicates that participants tended to rate themselves higher on Multiculturalist ($M = 5.50$) items and lower on Self-Hatred ($M = 1.95$) items. Recent recommendations that a multicultural social desirability scale should accompany the multicultural competency inventories (Sodowsky, 1996; Sodowsky, Kuo-Jackson, Richardson, & Corey, 1998) may need to be applied to the examination of measures of racial identity.

PI. Cross (1991) contended that Black racial identities are not markers of personality traits, or PI, unless RGO is negatively infused into the personality. Indeed, we found no relationships, including the one hypothesized, although PSH did have its strongest relationship with Neuroticism. Thus, nigrescence identities do not reflect general personality traits. PSH did have a modest, negative correlation with global self-esteem, giving credence to Cross's contention that Blacks in Pre-Encounter do not hate themselves unless they are also unhappy with their PI (Vandiver, 2001). As predicted, no other CRIS subscale was related to self-esteem.

Limitations and Future Research

Although promising, a number of limitations caution against the uncritical acceptance of the findings reported in this article. First, validation of the CRIS was based entirely on college samples of African American students attending predominantly White universities located in the northeastern region of the United States. As a result, the psychometric properties of the CRIS may not be generalizable to African Americans as a whole, or to African American college students in other regions of the United States, including those who attend historically Black universities. Second, the college samples in these studies were generally middle to upper middle class and had attained higher levels of education than the general African American population. Further validation of CRIS scores requires the use of African American samples from varied social classes, communities, and ages. A third limitation is the gender make-up of the samples. The female-male ratio was 3:1 in Study 1 and 2:1 in Study 2. Although these figures reflect the enrollment patterns for African Americans in higher education, they still raise questions about the possible impact on the findings. Future studies need to examine the psychometric properties of CRIS scores in independent samples of men and women.

Additionally, in keeping with Ponterotto's (1989) call, future work on the CRIS should include validating CRIS scores with

actual behavior (e.g., membership in organizations, contributions of time and resources to causes). There are many other questions that can and should be addressed. For example, will the responses of recent Black immigrant groups differ from the responses of African Americans? Will members of Black churches or other race-specific groups obtain higher scores on some subscales than will members of predominantly White churches? And will Blacks attending Black colleges show different patterns of Black racial identity than will Blacks attending predominantly White institutions?

Future convergent and discriminant validity analyses are also needed with the CRIS using other measures of racial identity (e.g., African Self-Consciousness Scale; Baldwin & Bell, 1985), personal identity (e.g., Collective Self-Esteem Scale; Luhanten & Crocker, 1992), and social desirability. Because few racial identity measures that are defined similarly to the CRIS exist, different approaches to testing convergent validity need to be undertaken. For example, measures of social distance and racial stereotyping may be useful in examining the validity of the PM and PSH subscales.

One measurement concern that requires further study involves the use of subscale scores. Although bivariate correlational analyses are necessary to examine the preliminary validity of each subscale, future studies should examine CRIS scores by using multivariate procedures. Helms (1990) observed that because nigrescence identities are attitudes, it is more meaningful to determine "the amount of attitudes associated with each stage" (p. 36). In other words, to understand individuals' racial identity attitudes, one needs to examine their profiles across all subscales of a measure rather than to look at individual subscale scores. Multivariate techniques such as cluster and profile analyses may identify consistent patterns of identities that can be used in applied work.

Finally, future research on the CRIS will also include more psychometric work on the two experimental scales. Ideally, the CRIS will eventually measure eight of the nine identities listed in the expanded nigrescence model (Cross & Vandiver, 2001; Worrell et al., 2001). The challenges will involve being able to delineate the Intense Black Involvement and Afrocentric identities and the Multiculturalist Racial and Multiculturalist Inclusive Identities. Although the experimental subscales are intended to capture the Intense Black Involvement and Multiculturalist Racial attitudes on unique subscales, other possibilities for measuring them include using profile analysis or cluster analysis to see whether there are unique combinations of currently measured identities that reflect these positions.

Conclusion

Preliminary evidence exists that the CRIS is a psychometrically strong measure of the six Black racial identities depicted in the expanded nigrescence model. Even though the present evidence is favorable, the CRIS, as a new instrument, remains relatively untested. Further examination of the CRIS's psychometric properties is necessary to warrant its use over time. Sabnani and Ponterotto (1992) noted that much of the minority-specific instrumentation in counseling research requires further study and called on the field "to set and plan a long-term research agenda" (p. 184). The RIAS-B (Parham & Helms, 1981) provided a springboard for the empirical investigation of the original nigrescence model (Cross,

1971) and served as part of the vanguard of minority-specific instrumentation. We hope that the CRIS can serve a similar purpose for the expanded nigrescence model (Cross & Vandiver, 2001; Worrell et al., 2001).

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