Implicit and explicit racial centrality and their differential implications for behavior

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Abstract

Using survey data from a sample of African-American youth, we examined the relation of implicit racial/ethnic identity centrality to three different measures of explicit centrality. We also examined the differential relations of these four measures to the following race/ethnicity related attitudes and behaviors: perceptions of discrimination and race relations at school, salience of race/ethnicity in the family, and preference for same race/ethnicity friendships. Results indicated that implicit centrality was related to all three measures of explicit centrality, but only to a small degree; all three explicit measures were moderately related to one another. Additionally, whereas implicit centrality was a better predictor of racial/ethnic attitudes, explicit measures were better predictors of race/ethnicity related behaviors.
When asked during an interview what her accomplishments meant to her as an African-American woman, Debbye Turner, Miss America 1990, explained that being Black was the least of whom she was. News reports following these remarks highlighted the discontent expressed by some members of the African American community who perceived Ms. Turner as rejecting her “Blackness”. Alternatively, however, Ms. Turner’s statement may have reflected her belief that, like most people, her identity was based on many characteristics, some or even most of which may have exceeded race in their self-definitional importance.

Many terms have been used to denote this sort of hierarchical significance of multiple identity elements, including identity strength, salience, importance, prominence, and centrality (e.g., add Eccles et al cites; Ethier & Deaux, 1990, 1994; James, 1902; Markus & Wurf (?), year; Oyserman, Sakamoto, & Lauffer, 1998; Sellers, Rowley, Chavous, Shelton, & Smith, 1997; Sellers, Smith, Shelton, Rowley, & Chavous, 1998; Stryker & Serpe, 1994). But these terms, particularly centrality, have also been used to refer to the extent to which a given identity element is psychologically prominent or accessible in individuals’ self-definitions, relative to their other identity elements (Banaji & Prentice, 1994; Gurin & Markus, 1988; Stryker & Serpe, 1994). In the present paper, we distinguish between explicit and implicit forms of centrality. The former refers to individuals’ conscious appraisals of the personal value they attach to a given identity element relative to other elements, whereas the latter represents the extent to which a given identity element is more chronically accessible than others in individuals’ everyday experiences. Although there is likely to be some overlap between these two constructs, we propose that they are empirically distinct from one another and have different implications for individual thought and behavior.
What is centrality?

There is no consensus as to whether the terms noted above—identity strength, salience, importance, prominence, and centrality—are equivalent, and a complete review of their varied conceptual and empirical usage is beyond the scope of this paper. Here we focus exclusively on definitions of identity centrality, in particular (except where others have used another term but a conceptualization similar to ours). Specifically, we explore whether the self-attributed appraisal of an identity element (in this case, race and ethnicity) as being central to one’s self-definition is distinct from the extent to which that identity element is a primary factor in individuals’ experiences across various situations. Both notions are included in common definitions of centrality, which we briefly review below.

In the Multidimensional Model of Racial Identity (MMRI, Sellers et al., 1998) and the Multidimensional Inventory of Black Identity (MIBI, Sellers et al., 1997) designed to test it, racial identity centrality is defined as “the extent to which a person normatively defines himself or herself in terms of race” (p. 25). Unlike the situational salience of race, centrality is considered to be a stable aspect of personality (Sellers et al., 1998) that drives behavioral choice across various situations. Although Sellers and his colleagues acknowledge that centrality consists of both a self-attributed importance of race in defining the self and a tendency for individuals to be particularly sensitive to racial cues across situations, the centrality subscale of the MIBI focuses only on the first of these two components. In addition, given the self-report nature of questionnaire instruments such as the MIBI, these measures assess only the individuals’ conscious appraisals of the extent to which race structures their everyday experiences.

In contrast to Sellers and his colleagues, Stryker and Serpe (1994) limit their definition of centrality to a “self-ascribed importance, based on the value of activities representing an
identity” (p. 19). They distinguish this component of identity from the “readiness to act out an identity as a consequence of the identity’s properties as a cognitive structure or schema” (p. 17).

This latter concept, referred to as identity salience, refers to the extent to which a given identity element is likely to be activated in individuals’ self-definitions across situations. Similarly, psychologists have often described identity centrality as a property resulting from an identity element’s being chronically (or durably) salient *across* situations (Gurin & Markus, 1988; McGuire, McGuire, Child, & Fujioka, 1978; Sellers et al., 1998).

**Implicit versus explicit centrality**

Inherent in the definitions described above is the notion that centrality consists both of individuals’ conscious appraisals of the relative importance of a given identity element to their overall self-definition and the extent to which that identity element is implicitly accessible across various situations. Like Stryker and Serpe (1994), we consider these phenomena to represent different but related constructs. We consider the former, to which we refer as explicit centrality, to be the result of a conscious process about which individuals are self-aware, as it is a self-attributed value attached to a specific identity element (c.f., McClelland, Koestner, & Weinberger, 1989); the latter, to which we refer as implicit centrality, is not necessarily within the realm of individuals’ self-awareness. This distinction is consistent with Stryker’s and Serpe’s (1994) distinction between centrality and salience, wherein they argue that centrality “assumes a level of self-awareness that is not inherent in salience” (p. 19). The question remains, however, as to whether these two constructs are indeed empirically distinct from one another.

There have been substantial developments in research on implicit constructs, particularly with regard to attitudes, self-esteem, and stereotypes and prejudice (for a review, see Greenwald & Banaji, 1995). These efforts have been applied in recent work on social identity as well. For
example, findings based on implicit measures have indicated that non-prejudiced Blacks and Whites (based on self-reported levels of “modern racism”) demonstrated in-group favoring preferences (Dasgupta, McGhee, Greenwald, & Banaji, 2000) on implicit tasks; Blacks demonstrated implicit self-stereotyping when their group’s distinctiveness was threatened (Smith & Henry, 1996); individuals from collectivistic cultures demonstrated tensions between implicit but not explicit self and group regard (Pelham & Hetts, 1998); and African-Americans, Latinos, and Asian-Americans indicated lower implicit group regard but higher implicit self regard relative to European-Americans (Pelham & Hetts, 1998).

Stryker and Serpe (1994) studied the relation between explicit and implicit social identity centrality directly; unfortunately, however, although they distinguished between implicit (which they referred to as identity salience) and explicit centrality conceptually, they did not effectively maintain this distinction in their operationalizations of these two constructs. Specifically, the measures they employed for both constructs required participants to actively reflect on and report the hierarchical organization of their identity elements. That is, in assessing explicit centrality, they asked participants to rank order the important elements of their identities; and in assessing implicit centrality, they asked participants to name the elements they would most likely include when describing themselves to someone who has never met them. Thus, although the authors purported to measure implicit centrality (“salience” in their terms) as “the likelihood with which a given identity element would be invoked,” they in fact measured the likelihood that individuals would explicitly choose to enact that identity element. Research on attitudes has indicated that knowledge activation is not necessarily linked to subsequent behavior (for a review, see Higgins, 1996). Therefore, we examine the relation between implicit and explicit centrality in the present paper using different measures of both constructs.
Psychological and behavioral implications

If implicit and explicit centrality are in fact separate constructs, they are also likely to have different implications for individual behavior. For example, recent research on the personal-group discrepancy in perceived discrimination has indicated that this discrepancy occurs only with explicit and not with implicit measures of discrimination (Ruggiero, Mitchell, Krieger, Marx, & Lorenzo, 2000). Specifically, when asked about their experiences with discrimination, women reported very few personal experiences but, consistent with previous research, agreed that women as a group were frequent targets of discrimination. On the other hand, findings based on implicit measures in the same study indicated that women were just as likely to associate “victim” words with “me” pronouns as they were with “we” (women as a group) pronouns. Thus, although these women did not identify with being victimized when given the opportunity to self-reflect, their automatic, uncontrolled responses suggested the contrary. Implicit and explicit forms of racial identity centrality are likely, also, to have different implications for attitudes and behaviors related to race and ethnicity.

Overview of present research

In sum, we conceptualize implicit identity centrality as a stable component of the self, wherein a given identity element (in this case race) is more accessible than are others in individuals’ minds, regardless of any particular context or situation. We distinguish this implicit form of centrality from the explicit value individuals attach to a given identity element relative to other elements in their self-definitions, to which we refer as explicit centrality. In the present study we explore the relation between a projective measure of implicit racial identity centrality, in particular, and several measures related to explicit racial identity centrality; in addition, we examine the differential relations of implicit and explicit centrality to various race and ethnicity
related attitudes and behaviors among a sample of African-American youth. Based on previous research documenting small or non-existent relations between implicit and explicit constructs (e.g., Greenwald & Banaji, 1995; Pelham & Hetts, 1995; Ruggiero et al., 2000), we hypothesized that: 1) there would be little correspondence between implicit and explicit measures of centrality; and 2) implicit centrality and explicit centrality would be differentially related to various race-related attitudes, expectations and behaviors.

Method

Sample

This research uses data from the longitudinal (5 waves), mixed model (survey and ethnographic) Maryland Adolescent Development in Contexts Study (MADICS). The sample for this larger study was drawn from a large, ethnically and socio-economically diverse county in the southeastern United States. Census tract information indicates that in 1991 the county’s population was 51% Black, and that income distributions for Blacks and Whites were similar. The analyses reported here were carried out for a sub-sample of approximately 500 Black adolescents for whom we had complete data in the fourth wave (11th grade, average age = 16; gender distribution?).

Measures

We included one measure of implicit centrality and three measures related to explicit centrality, including the centrality subscale of the MIBI (Sellers et al., 1997). In order to compare the differential relations of these measures to behavioral outcomes, we also included the following: Perceived discrimination at school, perceived racial climate at school, expectations of future discrimination at school and at work, perceived race-based challenges to getting ahead, salience of discrimination in the family, family involvement in own-race activities, and
preference for interacting with same-race peers. Descriptive statistics for all measures are provided in Table 1. Below we describe all of these measures in detail.

**Implicit centrality.** In order to assess implicit centrality, we obtained a frequency count of the number of times individuals spontaneously mentioned race in response to open-ended survey items unrelated to race or ethnicity. “Who is your hero” and “why do you admire that person” are examples of these open-ended items (see Appendix for a description of all items and coding used to assess implicit centrality). We argue that the extent to which race is spontaneously mentioned in response to these items is a reflection of the extent to which race is implicitly central for a given respondent. This methodology has been used to assess chronic accessibility of individual constructs (Higgins & Brendl, 1995; Higgins, King, & Mavin, 1982; Lau, 1989), which is very similar to our conceptualization of implicit centrality.

**Explicit centrality.** We included three measures reflecting traditional approaches to explicit ethnic and racial identity centrality: Ethnic importance, connection to ethnic heritage, and the centrality subscale of the MIBI (Sellers et al., 1997). Though somewhat different from one another, each of these three measures assesses, at least in part, the degree to which individuals consider their ethnicity to be an important part of the self-concept.¹

Importance of ethnicity consists of three items asking respondents how important it is for them to know about their racial or ethnic background, how important their race or ethnicity is to the daily lives of their families, and how proud they are of their racial or ethnic background. Responses to these items were given on a scale from 1 to 4 (“not at all” to “very”) and the overall scale shows adequate reliability (α = .74). Connection to ethnic heritage consists of four items

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¹ Of these three measures, only the centrality subscale of the MIBI purports to measure centrality specifically. The other two scales, ethnic importance and connection to ethnic heritage, also include items tapping into the affective component (e.g., private regard) of identity. Nonetheless, because regard and centrality are often conflated in the literature, we include these measures here to demonstrate their empirical distinction from implicit centrality.
and showed adequate reliability ($\alpha = .75$). Examples of these items are “people of my race/ethnicity have a culturally rich heritage,” and “because of my race I have meaningful traditions.” Responses to these items were given on a scale of 1 to 5 (“not at all true of me” to “extremely true of me”). Finally, MIBI centrality consists of seven items ($\alpha = .63$), with responses to these items given on a scale of 1 (“strongly agree”) to 5 (“strongly disagree”). Examples of these items are “being black is an important part of my self-image,” and “I have strong attachments to other blacks.”

**Race and ethnicity related outcomes.** In order to test hypotheses regarding the relations between implicit and explicit centrality and sensitivity to race-related stimuli, we also included data for each respondent on the following race and ethnicity related attitudes and behaviors, including same-ethnicity peer preferences, ethnic community involvement, and beliefs regarding discrimination. We describe the specific measures in detail below.

Same-ethnicity peer preference is assessed with three items asking respondents about the extent to which they and their parents preferred that they “hang out with” and date kids of their own race or ethnicity ($\alpha = .78$). Responses to these items were given on a scale of 1 (“strongly disagree”) to 4 (“strongly disagree”). Family involvement in own-ethnicity related activities assesses the frequency with which the youths and their families proactively participate in programs and activities that enhance their knowledge of or involvement with issues related to African Americans and their culture ($\alpha = .67$). This measure includes four items, such as “How often do you study the traditions or history of people with your racial background?” Responses to these items were given on a scale of 1 (“almost never”) to 5 (“almost always”), and averaged across all five items to obtain a score for each respondent.
We also included five measures assessing various beliefs regarding the role race-based prejudice and discrimination might play in respondents’ lives. First, salience of discrimination in the family assesses the frequency with which issues related to racial discrimination, generally or as it pertains specifically to the experiences of the respondents’ family members, are discussed within the respondents’ families (α = .71). This measure includes three items, and responses were given on a scale of 1 (“not at all”) to 5 (“a lot”). Perceived racial discrimination at school includes eight items that assess the frequency with which respondents feel like they are treated negatively by their teachers and peers at school because of their race (α = .89). Responses to these items were also given on the scale of 1 to 5 described above. Expectations of future discrimination is assessed with two items (r = .60) asking respondents the extent to which they expect that their race might prevent them from getting a job or an education in the future, again with responses given on a scale of 1 to 5.

Perceived racial climate at school was assessed with five items assessing the extent to which there were conflicts between teachers and students or among students at school (α = .70). Examples of these items are: “In this school, how many teachers show equal respect for students whether the student is Black, White, Hispanic, Asian, or American Indian?” (1 = “all;” 5 = “none”); and “In the past year, how often was there racial tension between students of different racial backgrounds?” (1 = “almost never;” 5 = “almost always”). Responses to these items (some reversed such that higher numbers reflect more positive relations) were summed and averaged for each respondent. Expectation of race-based challenges to getting ahead is assessed with two items (r = .83): “Because of your race, no matter how hard you work you will always have to work harder than others to prove yourself;” and “Because of your race, it is important that you do
better than other kids at school in order to get ahead.” Responses to these items were given on a scale of 1 (“strongly disagree”) to 4 (“strongly agree”), then averaged for each respondent.

Results

The analyses for this research proceeded in two stages. First, correlational analyses were conducted in order to examine the relations between the single measure of implicit centrality and the three measures of explicit centrality. Second, in order to examine the differential relations of implicit and explicit centrality to race-related attitudes and behavior, simultaneous regression analyses were conducted for each of the race and ethnicity related outcomes described above.

We describe these analyses in detail below.

Relation between implicit and explicit centrality

Consistent with previous research investigating the relations between implicit and explicit constructs within the same domains, Table 2 shows that, although the three explicit measures of centrality were correlated with one another at around $r = .35$, they were correlated with the implicit measure at no greater than $r = .14$. Moreover, as indicated in Table 3, all four measures of centrality, both implicit and explicit, were differentially correlated with the race and ethnicity related outcomes described above. Together, these findings indicate that, although implicit and explicit measures of centrality are somewhat related, they likely represent different constructs.

Psychological and behavioral implications

Given the low but significant correlations between the implicit centrality measure and the three explicit measures, in addition to their differential correlations with our race and ethnicity related outcomes, we conducted a series of regression analyses to determine the relative association of each of the centrality measures to each those outcomes (except for expectations of race-based challenges to getting ahead, as implicit centrality was not significantly correlated with
this variable). That is, by entering all of the measures of centrality simultaneously into a regression equation for each outcome, we were able to assess the relation of each measure of centrality to each outcome while controlling for all other measures of centrality.

Referring to Table 4, for perceived discrimination and negative race relations at school, implicit centrality and connection to ethnic heritage had significant effects but ethnic importance and MIBI centrality did not. Although all four measures of centrality were related to expectations of future discrimination, this effect was only marginal for ethnic importance. A similar pattern occurred for salience of discrimination in the family, with MIBI centrality being only marginally related. Similarly, ethnic importance was the strongest predictor of involvement in own-ethnicity related activities, followed by connection to ethnic heritage and then implicit centrality. MIBI centrality was unrelated to involvement in own-ethnicity related activities. And finally, connection to ethnic heritage and MIBI centrality were significantly related to preferences for same-race peers, but ethnic importance and implicit centrality were not.

Discussion

In sum, the results of this research indicate that, consistent with our predictions, implicit ethnic and racial identity centrality has only small associations with explicit ethnic and racial identity centrality; in contrast, all the explicit measures of ethnic and racial identity centrality in this research had moderate associations with one another. Partially in support of our hypotheses, implicit and explicit measures of ethnic and racial identity centrality were differentially related to various race and ethnicity related attitudes and behaviors. Generally, implicit centrality was a better predictor of ethnic and racial attitudes than was explicit centrality, whereas the explicit measures were better predictors of race and ethnicity related behaviors. Interestingly, however, implicit centrality showed convergence with connection to ethnic heritage, with both being more
robust than MIBI centrality and ethnic importance overall. Still, because these two measures were virtually unrelated, they likely represent separate constructs.

Given the relations between the implicit and explicit measures of centrality, particularly the convergence with connection to ethnic heritage, the question arises as to whether the effects of one may be mediated by the other. Like Stryker & Serpe (1994) we liken implicit centrality to self-schemata, which are cognitive generalizations about the self that guide and facilitate the processing of social stimuli. Such cognitive generalizations are thought to result, in part, from the accumulation or “over-learning” and storage of information within a particular self-relevant domain (Markus, 1977). Thus, as schemata become more elaborated, they lead individuals to automatically attend to and recall particular stimuli, and to encode and interpret these stimuli in ways consistent with the content of their existing schemata (cf., Higgins, 1996). Importantly, however, we distinguish between the content and structure of such schemata. Specifically, the extent to which a particular self-schema is chronically accessible to an individual constitutes the extent to which it is structurally central in their normative experiences at an implicit level, regardless of the specific content (e.g., importance or pride associated with race or ethnicity) of that schema.

As self-schemata are elaborated over time, however, individuals may eventually represent their content in more explicit structures (cf., Markus, 1977). In the case of implicit and explicit centrality, for example, individuals who have accumulated a substantial amount of experience in the identity-relevant domain may eventually come to define themselves normatively in terms of that identity element. It is in this way that explicit centrality may partially mediate the effects of implicit centrality on everyday behaviors and attitudes. That is, the accumulation of race and ethnicity-relevant experiences, or the chronic accessibility of race and ethnicity, may lead
individuals to eventually attach significance to race and ethnicity in their everyday lives. This significance, in turn, may directly influence individuals’ attitudes and behaviors as they relate to race and ethnicity.

But the converse of this argument is also feasible. That is, it is equally likely that explicit centrality mediates the effects of implicit centrality on subsequent attitudes and behaviors (see Sellers et al., 1998). Indeed, the direction of causality between implicit and explicit constructs in general is the subject of ongoing debate within psychology (e.g., Bizer & Krosnick, 2001; McClelland et al., 1989). Returning to the distinction between the content and structure of self-schemata, the former may have the greater influence on individuals’ attention and encoding of external stimuli. In other words, the specific content of individuals’ self-schemata may lead them to attend to features of situations that are consistent with that content. In the case of racial and ethnic centrality, for example, individuals who consider race and ethnicity to be an important component of the self may more readily attend to racial and ethnic cues in situational contexts. As a result of this process, over time race and ethnicity may become chronically accessible—or implicitly central—to such individuals, and consequently lead them to more readily activate racial and ethnic constructs in situations for which race and ethnicity are salient. Unfortunately, we were unable to test these causal hypotheses with the present data.  

Limitations

We have argued in this paper that implicit identity centrality is empirically distinct from explicit identity centrality. Although the results of our study were consistent with this argument, we recognize that our conclusions remain argumentative for many reasons. One major limitation to this research, for example, is that our measure of implicit centrality did not take into account
whether race was chronically accessible to respondents as a self-construct. That is, although we obtained the frequency with which respondents mentioned race spontaneously, there was no indication in these responses as to the extent to which race was linked to the self. Thus, although race appears to be a chronically accessible construct among some individuals and influences their attitudes and behaviors, this is not necessarily an indication that such individuals define themselves normatively in terms of race. In other words, it can be argued that, although we have demonstrated that race itself can be an implicitly central construct, we have not demonstrated this for racial identity specifically.

Research on chronically accessible individual constructs (c.f., Bargh, Lombardi, & Higgins, 1988; Higgins et al., 1982; Lau, 1989), however, assumes such chronicity to occur as a result of individuals’ cumulative, personal experiences with a given construct. In the case of race and ethnicity, for example, persons for whom race and ethnicity are chronically accessible are presumed to have had a substantial accumulation of encounters in which race and ethnicity were salient. Similarly, persons for whom a given self-schema is central are presumed to be very experienced with that construct. Importantly, however, these cumulative experiences become stored in a self-schema only to the extent that they are self-relevant. Moreover, given the nature of the items used to assess implicit centrality in this study, individuals’ use of race in their responses is highly likely to reflect self-relevance. For example, most of these items were designed specifically to tap into self-constructs, and all of them relate to respondents’ personally relevant experiences (as opposed, for example, to their perceptions of others in their interactions). Thus, although we did not code for racial identity, per se, we can presume that

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2 One of the necessary criteria for establishing causality is that the causal variable must temporally precede the outcome (Cohen & Cohen, 1983). Because the implicit and explicit measures of centrality used in this study were assessed on the same questionnaire, we are unable to examine their causal influences on one another.
respondents’ mentions of race in these items certainly reflect the extent to which race is a self-
relevant construct.

Implications and directions for future research

Although we were unable to examine the causal relation between implicit and explicit
centrality with the present data, we acknowledge nonetheless that the direction of causality may
have important implications in many areas. For example, some proponents of multiculturalism
and diversity in contemporary United States social policy would likely support individuals’
endorsement of their racial and ethnic background as important to their sense of self and
community. Specifically, as individuals accumulate positive experiences with members of other
racial and ethnic groups, they may eventually become especially sensitive to issues that are
relevant to race and ethnicity. As a result, such individuals may attach personal significance to
such issues, leading them to be more thoughtful in their consideration of these issues (Higgins,
1996; Markus, 1977). In this sense, implicit centrality (or chronic accessibility) leads to
increased explicit centrality (personal significance), which in turn leads to elaborated processing
of relevant stimuli.

Others argue, however, that attaching significance to race and ethnicity is inherently
divisive and thus perpetuates ethnic and racial conflict. For example, the heavy focus on
multiculturalism and diversity may encourage Americans to attach significance to their racial and
ethnic background. If explicit centrality causes implicit centrality, then individuals may become
schematic for race and ethnicity and, consequently, more likely to attend to race and ethnicity
related cues, even in ambiguous situations (Markus, 1977). Such biased processing has been
shown to lead to categorical judgments and biased treatment of individuals, such as stereotyping
and discrimination (Hamilton, Sherman, & Ruvolo, 1990). Moreover, it may also lead individual
members of groups characterized by a history of disadvantage, such as African Americans, to be more likely to appraise ambiguous situations as discriminatory. This particular question has already been a topic of much discussion, both lay and social scientific. We hope to address it empirically in our own future work examining the causal relations among implicit centrality, explicit centrality, and perceptions of discrimination using longitudinal data.

Finally, given that implicit constructs have been shown to be more predictive of automatic responses and explicit constructs have been shown to be more predictive of responses resulting from more elaborated processing (for reviews see Bargh, 1997; Devine, 1989; Higgins, 1996), experimental investigations of implicit and explicit centrality are warranted. Such investigations would allow for the manipulation of processing time from stimulus to response, which was precluded in this study because of our reliance on survey methodology. Although our finding that implicit centrality predicts attitudes and explicit centrality predicts behavior is suggestive of such differential processing, the data are insufficient for substantiating such a claim empirically. Likewise, experimental investigations of implicit and explicit centrality may be useful in testing the mediational hypotheses discussed earlier in this paper. Importantly, we have provided evidence for the implicit-explicit distinction in racial and ethnic identity centrality using a single method of measurement; the use of other methods and measures in investigations of this distinction would further our understanding of this phenomenon.
References


Table 1: Descriptive statistics for all measures in the study

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<th>Measure</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
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<td>.00</td>
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<td>Connection to Ethnic Heritage</td>
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<tr>
<td>Importance of Ethnicity</td>
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<td>1.00</td>
<td>4.00</td>
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<td>MIBI Centrality</td>
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<td>1.00</td>
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<td>Perceived discrimination</td>
<td>538</td>
<td>1.00</td>
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<td>1.3973</td>
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<td>Perceived negative race relations</td>
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<td>2.2245</td>
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<td>Expectations of future discrimination</td>
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<td>Race-based challenges</td>
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<td>Family Involvement in Own Ethnicity-Related Activities</td>
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Table 2: Bivariate correlations among all measures of ethnic identity centrality

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<tr>
<td>2. Connection to Ethnic Heritage</td>
<td>Pearson Correlation</td>
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<td></td>
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<td>3. Importance of Ethnicity</td>
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<td>.32 **</td>
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<td>470</td>
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<td>4. MIBI centrality</td>
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<td>.38 **</td>
<td>.37 **</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>553</td>
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</table>

**. Correlation is significant at the 0.01 level (2-tailed).
Table 3: Bivariate correlations of implicit and explicit centrality with race and ethnicity related attitudes and behavior.

<table>
<thead>
<tr>
<th></th>
<th>Personal discrimination experiences at school</th>
<th>Perceived negative race relations at school</th>
<th>Expectations of future discrimination</th>
<th>Perceived race-based challenges to getting ahead</th>
<th>Salience of discrimination in family</th>
<th>Family Involvement in Own Ethnicity-Related Activities</th>
<th>Preference for interacting with Peers of Own Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implicit centrality</td>
<td>Pearson Correlation</td>
<td>.20**</td>
<td>.15**</td>
<td>.17**</td>
<td>.06</td>
<td>.24**</td>
<td>.19**</td>
</tr>
<tr>
<td></td>
<td>N</td>
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<td>500</td>
<td>563</td>
<td>455</td>
<td>484</td>
<td>483</td>
</tr>
<tr>
<td>Connection to Ethnic Heritage</td>
<td>Pearson Correlation</td>
<td>.17**</td>
<td>.15**</td>
<td>.23**</td>
<td>.32**</td>
<td>.32**</td>
<td>.33**</td>
</tr>
<tr>
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<td>497</td>
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<tr>
<td>Importance of Ethnicity</td>
<td>Pearson Correlation</td>
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<td>.07</td>
<td>.19**</td>
<td>.19**</td>
<td>.31**</td>
<td>.45**</td>
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<tr>
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<td>N</td>
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<td>484</td>
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<tr>
<td>MIBI centrality</td>
<td>Pearson Correlation</td>
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<td>.09*</td>
<td>.22**</td>
<td>.28**</td>
<td>.25**</td>
<td>.20**</td>
</tr>
<tr>
<td></td>
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<td>587</td>
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</table>

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).
Table 4: Results of simultaneous regression analyses comparing relations of implicit and explicit centrality to race and ethnicity related attitudes and attitudes and behaviors.

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Centrality measures</th>
<th>( R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Implicit</td>
<td>Connection</td>
</tr>
<tr>
<td>Perceived discrimination at school</td>
<td>.18 (.18)**</td>
<td>.10 (.14)**</td>
</tr>
<tr>
<td>Perceived negative race relations at school</td>
<td>.13 (.13)**</td>
<td>.09 (.12)*</td>
</tr>
<tr>
<td>Expect future discrimination</td>
<td>.17 (.12)**</td>
<td>.14 (.14)**</td>
</tr>
<tr>
<td>Salience discrimination in family</td>
<td>.23 (.17)**</td>
<td>.18 (.20)**</td>
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<tr>
<td>Family’s ethnic involvement</td>
<td>.17 (.12)**</td>
<td>.21 (.21)**</td>
</tr>
<tr>
<td>Same ethnicity peer preferences</td>
<td>.06 (.05)</td>
<td>.16 (.20)**</td>
</tr>
</tbody>
</table>

*\( p < .05 \), **\( p < .01 \), ***\( p < .001 \); \( N = 469 \).
Appendix

Implicit Centrality Items

The following, non-race related, open-ended items were used to assess implicit centrality. The frequency with which respondents spontaneously mentioned race in their responses across these items was used as their implicit centrality score.

Three Wishes/Million Dollars

- Please tell me what you would wish for, if you had three wishes?
- If you had a million dollars, what would you most want to do with it?

Traits of Admired Hero/Celebrity/Older Sibling

- Can you tell me what things you admire the most about this person?
- What do you admire about (celebrity)?
- What do you admire most about (Older Sibling)?
- What do you dislike most about (Older Sibling)?

Prevent Job/Education

- What things might keep you from getting the job you want?
- What things might keep you from getting as much education as you want?

Parental Disapproval

- What is it about your friends that your parent(s) don’t like or approve of?

High School Drop Out

- Has anyone at school like teachers or counselors discouraged you from dropping out? What did they say to you?
- Could you tell me why you dropped out of school?
Parent/Peer Differences

- Do your friends and your parent(s) have different ideas about how you should behave and what you should do? (If Yes:) What do your parents think?
- What do your friends think?

Gender Discrimination

- Do you think it will be harder or easier for you to get ahead in life because you are a (boy/girl)? In what ways will it be (harder/easier)?

Interests

- Do you have any special interests, skills or something you really like to do such as music, art, drama, athletics, schoolwork or some other ability? What are these talents?
- Have you taken any other types of lessons? (IF YES:) What lessons?
- Last summer, did you take any classes or lessons outside of summer school? (IF YES:) Which classes or lesson?

College Choice

- Do you know what colleges you want to apply to? Which ones?
- What college do your parents want you to attend?