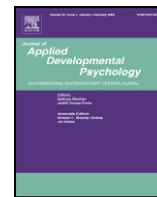




Contents lists available at ScienceDirect

## Journal of Applied Developmental Psychology

Peer status in an ethnic context: Associations with African American adolescents' ethnic identity<sup>☆</sup>Patrick F. Rock<sup>a</sup>, Daphne J. Cole<sup>b</sup>, Shadi Houshyar<sup>c</sup>, Mawiyah Lythcott<sup>d</sup>, Mitchell J. Prinstein<sup>b,\*</sup><sup>a</sup> University of California at Los Angeles, USA<sup>b</sup> University of North Carolina at Chapel Hill, USA<sup>c</sup> First Focus, Washington, DC, USA<sup>d</sup> Loyola University Chicago, USA

## ARTICLE INFO

## Article history:

Received 30 June 2009

Received in revised form 7 March 2011

Accepted 16 March 2011

Available online 6 May 2011

## Keywords:

Peer status

Adolescents

Ethnic identity

## ABSTRACT

This investigation examined the association between ethnic identity centrality and peer status for African American adolescents who represented a sizable proportion, yet numerical minority within a high school context. Initial analyses indicated that a traditional sociometric nomination procedure did not adequately characterize peer status for African American adolescents. A modified nomination procedure varying the ethnicity of nominators yielded measures of African American adolescents' peer acceptance/rejection and perceived popularity as rated by African American or European American peers. Results suggest that high levels of peer acceptance and popularity as rated by African American peers were associated with high ethnic identity centrality; however, acceptance and popularity as rated by European American peers were unrelated to ethnic identity centrality among African American adolescents. Findings suggest the importance of examining peer status of African American adolescents with consideration given to ethnicity as a relevant context.

© 2011 Elsevier Inc. All rights reserved.

The construction of a multi-dimensional sense of self is a key developmental task of adolescence. Theory and research indicate that adolescents' interpersonal experiences are instrumental in the development of self-concept, such that adolescents' sense of self likely varies across specific interpersonal contexts (Harter, 1990, 2006; Harter, Bresnick, Bouchev, & Whitesell, 1997). Adolescence also is associated with significant developmental changes in the frequency and quality of peer interactions. Through processes of social comparison and reflected appraisal, status among peers can serve a crucial role for the development of an adaptive self-system (Brown & Lohr, 1987; Harter et al., 1997). Past research suggests that rejection within the overall peer group is concurrently and longitudinally associated with low levels of global self-worth among children and adolescents (Harter, 1990; Hymel, Rubin, Rowden, & LeMare, 1990) while peer acceptance is associated with high levels of adolescents' self-esteem (Chiu, 1987; Harter, 1999; Walker & Greene, 1986). Apart from studies examining peer status within the overall peer group and global indices of self-esteem, however, relatively little is known

concerning peer status within specific peer contexts that may have implications for distinct dimensions of the self-system.

**Peer status in the ethnic subgroup**

One relevant area of research that necessitates further inquiry is the examination of associations between peer relations and self-concept among adolescents who are members of an ethnic group that comprise a numerical minority, such as African American adolescents in many North American communities. Although African American adolescents often have been included in empirical investigations of peer relationships, it generally is more common for samples to include either a majority of African American participants (Miller-Johnson, Coie, Maumary-Gremaud, Lochman, & Terry, 1999; Xie, Cairns, & Cairns, 1999) or too few African American participants to comprise a sufficient subgroup to examine unique processes (e.g., Gest, Graham-Bermann, & Hartup, 2001; Jarvinen & Nicholls, 1996). Yet in many North American communities, African American adolescents experience ethnically diverse social contexts. The processes that may be specifically relevant to self-development of African American adolescents, including salient aspects of peer reputations in this context, therefore remain relatively under-explored (Dutton, Singer, & Devlin, 1998).

The importance of examining peer relations within an ethnic context is particularly important during the adolescent developmental period. Specifically, research on interethnic relations suggest that youth create separate social groups and affiliations across ethnic lines

<sup>☆</sup> Special thanks are due to Annie Fairlie, Robin M. Carter and Daryn David for their assistance with data collection, and all of the adolescents and families who participated in this project. We also express gratitude to Toon Cillessen for insightful comments on an earlier draft of this manuscript.

\* Corresponding author at: University of North Carolina at Chapel Hill, Department of Psychology, Davie Hall, Campus Box 3270, Chapel Hill, NC 27599-3270, USA. Tel.: +1 919 962 3988; fax: +1 919 962 2537.

E-mail address: mitch.prinstein@unc.edu (M.J. Prinstein).

with an apparent shift toward more segregated affiliations in the transition from childhood to adolescence (Aboud, Mendelson, & Purdy, 2003; Graham, Taylor, & Ho, 2009; Schofield & Sagar, 1977). These segregated social groups may in turn strengthen an affiliation with one's ethnic group, and create essentially separate peer subcultures within a single adolescent context (Brown & Mounts, 1989). In fact, Brown and Mounts (1989) report that in their study of multiethnic high schools, between a third and one-half of ethnic minority adolescents were associated with ethnically-defined subgroups. The examination of adolescents' peer relations without consideration of the ethnic context therefore poses a threat to the validity of traditional methods to assess peer status. In other words, the assessment of adolescents' reputations among peers within the overall context, without consideration of ethnically-based subgroups, may lack cultural context.

The current study specifically examines peer status among African American adolescents and associations with a measure of ethnic identity. Two issues were addressed. First, it is possible that adolescents who are part of a numerical minority group are systematically under-nominated in traditional (i.e., grade-wide and cross-ethnic) peer nomination procedures (Bellmore, Nishina, Witkow, Graham, & Juvonen, 2007). Specifically, in much peer status research, a categorical measure of peer status has been used, with youth divided into five categories: "Popular" (often liked/rarely disliked), "Rejected" (often disliked/rarely liked), "Neglected" (rarely nominated), "Controversial" (often disliked/often liked) and "Average." Adolescents who are part of a numerical minority ethnic subgroup may be overrepresented in the "neglected" category, and underrepresented in all other categories, reflecting a tendency for few peers to nominate them on any sociometric items. However, nominations from peers within the minority group may reveal a new dimension of peer status that is relevant for self-development. To address this question, we first calculated sociometric status for each adolescent in an ethnically heterogeneous sample of adolescents to determine whether African American adolescents 1) received significantly fewer nominations on each individual sociometric item; and 2) were disproportionately classified as "neglected" using traditional sociometric procedures involving the full sample of adolescents as nominators.

Second, this study used a modified analytic procedure in which numerical minority (i.e., African American) adolescents' peer status was determined separately within each ethnic subgroup. Specifically, continuous measures of peer status among African American peers and continuous measures of peer status among European American peers were calculated. Consistent with contemporary developmental research, two measures of peer status were assessed: 1) social preference, a measure of likeability; and 2) social reputation, a measure of perceived popularity (Parkhurst & Hopmeyer, 1998; Prinstein & Cillessen, 2003). Substantial recent work has suggested that peer acceptance/rejection is a preference-based construct indicating adolescents' level of likeability within the peer group, while perceived popularity (i.e., popularity) is a reputation-based construct that reflects adolescents' dominance, positions within the social hierarchy, and access to resources (Parkhurst & Hopmeyer, 1998; Prinstein & Cillessen, 2003). Using this adapted peer nomination analyses, we examined whether ethnic identity centrality discriminately related to African American's adolescents' peer status, as determined by African American vs. European American peers.

#### *Peer status within ethnic subgroups: Correlated, but distinct*

Past research offers several reasons to suggest that ethnic identity centrality may be discriminately associated with African American's adolescents' peer status as determined by African American peers as compared to status among European American peers. First, it is important to note that peer status within African American and European American subgroups of peers likely are discrete measures. Like other subgroups of youth (e.g., based on gender), a subgroup of ethnic minority adolescents may be characterized by a discrete set of

social norms or a distinct hierarchy of peer status. Indeed, peer status within an ethnically defined subgroup may be only moderately associated with status within the European American peer group, and these two indices of status may be differentially associated with dimensions of behavior and self-concept. For example, it is possible that an African American adolescent considered well liked or popular within the African American peer group is not well-known, or perhaps is disliked or unpopular within the majority European American overall peer group. Bagwell, Coie, Terry, and Lochman (2000) illustrate the relevance of this point in their study of peer cliques, revealing that peer acceptance and rejection within the peer clique is not redundant with peer acceptance/rejection in the overall peer context. Thus, peer status is inherently a *relative* construct, yielding data regarding youths' status relative to a specified context (i.e., based on nominations *within a classroom, grade, or school*) (Zakriski & Prinstein, 2001). Adolescents' peer status likely may differ, therefore, when based on nominations by the overall peer context, or only by peers of a specific gender or ethnicity.

#### *Ethnic identity: Relevant to peer status within an ethnic subgroup?*

This investigation specifically examined ethnic identity as a dimension of the self relevant to ethnic minority adolescents and potentially related to peer status in the ethnic minority context. Several prevalent models of ethnic identity have proposed that, as with other domains of self-concept, ethnic identity is a salient, meaningful aspect of the self that evolves through interpersonal experiences throughout adolescence and young adulthood (Phinney, 1990; Seaton, Yip, & Sellers, 2009; Tatum, 1997). Previous research suggests that ethnic identity indeed is relevant for minority youth in North American culture, and predictive of adjustment (Aries & Moorehead, 1989). In fact, a sense of belonging within one's ethnic group is associated strongly with positive psychological adjustment generally for African American adolescents (Mandara, Gaylord-Harden, Richards, & Ragsdale, 2009). It has been posited that ethnic identity may be the most salient aspect of African American adolescents' sense of self and predictive of global self-esteem (Phinney, Cantu, & Kurtz, 1997).

Ethnic identity is a multidimensional construct, including aspects that relate to both development (e.g., exploration, and commitment; Phinney, 1990) and content (e.g., private and public regard, and centrality; Sellers, Rowley, Chavous, Shelton, & Smith, 1997). This study focused on ethnic identity centrality, a measure of the significance of an adolescent's ethnicity to his or her self-concept, because previous research suggests that it plays an important role in socioemotional adjustment in the school context. Ethnic identity centrality includes the significance an individual attaches to their ethnic identity (Sellers et al., 1997). Among minority adolescents, it is associated positively to feelings of being valued at one's school and identification with the school (Fulgini, Witkow, & Garcia, 2005) and it buffers the effects of discrimination experiences on problem behaviors (Wong, Eccles, & Sameroff, 2003).

A limited body of research has addressed the possibility that ethnic subgroups may show different relationships to self-concept variables than those evidenced in majority populations. For instance, research on the relationship between ethnic identity and self-concept has revealed that ethnic identity centrality moderates the relationship between private regard and personal self-esteem (Rowley, Sellers, Chavous, & Smith, 1998). The relationship between ethnicity and belongingness also has been explored, showing that African American adolescents have lower levels of belongingness overall as compared to European American peers (Faircloth & Hamm, 2005). African American youth, in contrast to European American classmates, also show increases in anxiety and loneliness after the high school transition (Benner & Graham, 2007). Finally, it has been hypothesized that African American adolescents form their self-concept using reflected self-appraisals of other African Americans, rather than those of majority peers (Gray-Little & Hafdahl, 2000).

It has been hypothesized that ethnic identity both motivates and is the result of membership and participation in an ethnic subgroup (Tatum, 1997). Yet, though the relationship between ethnic identity and self concept has been explored, and the importance of peer status in the ethnic minority subgroup has been established, there has been little if any study of the relationship between ethnic identity centrality and peer status. Given the strong relationship between self-concept and peer status in other studies, and the importance of ethnic identity to the self-concept of minority adolescents, this represents a major gap in the research. Such research provides an important step to move beyond descriptive, race-comparative research, and towards an approach of looking at behaviors and relationships within meaningful and complex ethnic contexts (Garcia-Coll, Crnic, Lamberty, & Wasik, 1996).

### The present study

This study closely examined peer relations within the African American peer group context. First, we examined whether African American adolescents' peer status was captured adequately within the overall sample, using traditional peer nomination procedures. It was hypothesized that, within this ethnically heterogeneous setting, African American adolescents would be significantly less likely to be nominated than European American adolescents on every peer nomination item assessed. Consequently, African American adolescents would be over-represented in the "neglected" peer status category as compared to European American adolescents. Thus, these first two hypotheses involved all African American and European American participants. Second, the peer status of African American adolescents was examined, based on the separated nominations of African American and European American peers; associations with ethnic identity centrality were examined. Such an analytic approach has the advantage of allowing a consideration of the unique context of African American peer status (Phinney & Landin, 1998). It was hypothesized that African American adolescents' peer acceptance and perceived popularity within the African American context would be associated with high levels of ethnic identity centrality while African American students' peer acceptance in the European American context would be unrelated to African American adolescents' ethnic identity. This hypothesis involved analysis only of African American participants.

## Method

### Participants

Participants included 419 eleventh and twelfth grade students (40.8% boys and 59.1% girls) attending a public high school in New England. All students were between the ages of 16 and 19 ( $M = 17.0$ ,  $SD = .50$ ). A total of 72 African American (57% female) and 347 European American (59% female) comprised the final sample. The school was located in a city with a population of diverse socioeconomic status (per capita income = \$25,175; Connecticut State Department of Education, 2001). Records indicate that approximately 18% of students were eligible for free or reduced-fare lunch.

### Procedures

All students in the eleventh and twelfth grades were recruited to participate in the study, with the exception of students in self-contained special education classes. A letter of consent initially was mailed to each adolescent's family followed by a series of reminders and additional letters distributed directly to teens by school and research personnel. Recruitment involved a description of a study regarding "peer relationships and adjustment" with no mention of ethnicity. Response forms included an option for parents to grant or deny consent; adolescents were asked to return their signed response form regardless of their parents' decision. Numerous adolescent-

teacher-, and school-based incentives were used to ensure the return of these consent forms. Out of the 824 students initially recruited for participation, 598 (73%) returned consent forms (75% of 11th graders and 69% of 12th graders). Of these, 547 (91%) consented to participate, and full data were available for 522 adolescents. Return rates and consent rates were within 2% across African American and European American students. From this initial sample of 522 adolescents, 13.8% were African American, 66.5% European American, 2.1% Latino/a, 2.3% Asian American, and 4.2% Other/Mixed Ethnicity. Approximately 11.1% of participants did not disclose their ethnic background. The ethnic composition of the sample was not significantly different from the school population,  $\chi^2(3) = 3.53$ ,  $ns$ . Given the limited numbers of Latino, Asian American, and Other/Mixed Ethnicity students enrolled at the high school, African American and European American adolescents were the only ethnic groups considered below ( $n = 419$ ).

### Sociometric assessment

Sociometric assessments were conducted to obtain measures of peer acceptance/rejection and perceived popularity. Due to the unique goals of this study, sociometric data were coded in two ways, yielding two parallel measures of both peer acceptance/rejection and perceived popularity.

A traditional, grade-wide sociometric assessment of peer status was conducted. During a classroom administration of study measures, each adolescent was presented with an alphabetized roster of all grademates (Franzoi, Davis, & Vasquez-Suson, 1994), and was asked to select an unlimited number of peers that they "liked the most," and "liked the least" to assess peer acceptance/rejection and to select an unlimited number of peers that were "most-"and "least popular" to assess perceived popularity. The order of alphabetized names on rosters was counterbalanced (e.g., Z through A) to control for possible effects of alphabetization on nominee selection. Using sociometric procedures it is possible to obtain an ecologically-valid measure of peer status that is not influenced by adolescents' self-report. Data from sociometric nominations widely are considered the most reliable and valid indices of acceptance and rejection among peers (Coie & Dodge, 1983).

To appraise the adequacy of a traditional sociometric status assessment in representing the experiences of a numerical minority group, five sociometric status groups (i.e., popular, rejected, neglected, controversial, and average) were computed based on all adolescents' (i.e., African American and European American peers') peer sociometric data. Peer status groups were computed according to standard criteria (e.g., Coie & Dodge, 1983), with one modification. Given the relatively low number of African American participants, a modified cutoff score ( $SD \pm .5$ ) was used in the classification process (see Walker & Greene, 1986; Zakriski & Prinstein, 2001). Specifically, adolescents with standardized *social preference* scores greater than .5, *like most* scores greater than 0, and *like least* scores of less than 0 were classified as *popular*; adolescents with *social preference* scores less than  $-.5$ , *like most* scores less than 0, and *like least* scores greater than 0 were classified as *rejected*; adolescents with *social impact* (standardized sum of standardized liked most and liked least scores) scores less than  $-.5$ , *like most* and *like least* scores less than 0 were classified as *Neglected*; adolescents with *social impact* scores greater than 0, and *like most* and *like least* scores above .5 were classified as *Controversial*, and all others were classified as *None/Average*.

To test our second hypothesis, two sets of scores were computed by separately calculating summary scores based on African American peers' nominations and European American peers' nominations. First, all nominations provided by African American peers were tabulated. For each sociometric item, a sum of nominations each student received from African American nominators was computed and standardized within grade. A difference score between standardized *like most* and *like least* nominations then was computed and restandardized for a measure of *social preference as rated by African*

American peers (i.e., SP by AA peers), with higher scores indicating greater peer acceptance and lower scores indicating greater peer rejection (Coie & Dodge, 1983). Similarly, a difference score between standardized *most* and *least popular* nominations was computed and restandardized for a measure of *social reputation as rated by African American peers* (i.e., SR by AA peers), with higher scores indicating greater perceived popularity (Parkhurst & Hopmeyer, 1998; Prinstein & Cillessen, 2003). A second set of scores then was computed in an identical fashion using only peer nominations provided by European American peers (i.e., SP by EA peers; SR by EA peers).

#### Ethnic identity centrality

Ethnic identity centrality was examined using the centrality subscale of the Multidimensional Inventory of Black Identity (MIBI) (Sellers et al., 1997). This scale examines the extent to which ethnicity is central to an individual's sense of self with higher scores indicative of ethnicity being a more important aspect of self. Participants are asked to indicate agreement with eight items using a 7-point Likert scale. Preliminary examination of this scale for African American adolescents in the current sample revealed that four items had atypical distributions (perhaps due to reverse coding and awkwardly worded items), and correlated poorly with the other four items (all  $r$ 's  $< .10$ , NS). In addition, factor analyses revealed that these same four items loaded on a unique factor, and the internal consistency of the overall centrality scale was improved incrementally by removing each item. Thus, only four items were included in this measure of ethnic identity centrality ( $M = 4.16$ ,  $SD = 1.51$ ), (i.e., "In general, my race is an important part of my self-image;" "I have a strong sense of belonging to my race;" "I have a strong attachment to other people in my racial group;" "My race is an important reflection of who I am."). Among African American adolescents, internal consistency in the current sample for these items was adequate ( $\alpha = .83$ ), and intercorrelations between these items was moderate ( $r$ s  $> .30$ ,  $p < .05$ ).

#### Data analytic plan

The first hypothesis suggested that African American adolescents would be significantly less likely to be nominated than European American adolescents on every peer nomination item assessed in a traditional sociometric assessment. A MANOVA with four peer status items (i.e., like most, like least, most popular, and least popular) as a set of dependent variables was conducted to examine this hypothesis. Ethnicity was entered as a between-groups variable. To examine ethnic differences in the distribution of adolescents across sociometric status categories, a chi-squared analysis was conducted. Our second hypothesis suggested and hypothesized that African American adolescents' peer acceptance and perceived popularity within the African American context would be associated with high levels of ethnic identity centrality while African American students' peer acceptance in the European American context would be unrelated to African American adolescents' ethnic identity. With data only from African American participants, two multiple regression analyses were conducted. Ethnic identity centrality was entered as a criterion variable in each analysis. In one regression, measures of social preference as rated by African American peers and as rated by European American peers were entered simultaneously as predictors. In the second regression, parallel measures of social reputation were entered as predictors.

## Results

#### Examination of African American adolescents' peer reputations using a traditional sociometric procedure

It was hypothesized that as a numerical minority group, African American adolescents would be less likely to be selected for each

sociometric item using traditional peer nomination procedures. A significant multivariate effect from a MANOVA analysis was revealed, Wilks'  $\Lambda$  (4, 414) = .94;  $F = 7.14$ ,  $p < .001$ , as well as significant univariate effects for each individual dependent measure (see Table 1). As hypothesized, African American adolescents were less likely to receive nominations for every sociometric item as compared to European American adolescents.

To examine whether African American adolescents were overrepresented within the neglected sociometric status category, a 2 (Ethnicity)  $\times$  5 (Sociometric Status) chi-square analysis was conducted. Results suggested that classification in each of the peer status groups varied significantly by ethnicity,  $\chi^2(4) = 24.58$ ,  $p < .001$ . The proportion of European American adolescents distributed across each of the status groups generally was consistent with past research (Popular: 10.7%, Rejected: 11.9%, Neglected: 10.9%, Controversial: 9.4%, and None/Average: 57.1%; see Coie & Dodge, 1983). However, the proportion of African American adolescents in each group suggested an over-representation of Neglected, and under-representation of Rejected and Controversial adolescents in particular (Popular: 9.9%, Rejected: 2.2%, Neglected: 26.4%, Controversial: 2.2%, and None/Average: 59.3%). Because so few African American adolescents met the criteria for sociometric status categories, other than Neglected, using this typical sociometric procedure, it was not possible to conduct statistical analyses comparing these proportions to the status group classifications yielded from nominations by African American peers. Nevertheless, the data from African American peers are informative for descriptive purposes: Popular: 51.4% Rejected: 2.8%, Neglected: 12.5%, Controversial: 26.4%, and None/Average: 6.9%.

#### Examination of distinct peer reputation variables, based on African American and European American nominators, as concurrent predictors of ethnic identity centrality

To examine the utility of a modified analytic procedure for understanding peer status in an ethnic context, analyses were conducted using measures of social preference and social reputation, each as rated by either African or European American peers. Because it was expected that these hypotheses would be pertinent only to African American adolescents, analyses were conducted only among the 72 African Americans in the sample. Table 2 displays correlations between each study variable within the African American subsample. As was anticipated, the strength of the association between measures of peer status as rated by African American versus European American nominators was low to moderate.

An initial multiple regression was conducted in order to examine discriminant associations between measures of social preference based on African American and European American peers' nominations as concurrent predictors of African American adolescents' ethnic identity. Using ethnic identity centrality as a criterion measure, both social preference as rated by African Americans (i.e., SP by AA peers) and by European American peers (SP by EA peers) were entered simultaneously as predictors. Results revealed that only high levels of

**Table 1**

Peer nomination scores of African American ( $n = 72$ ) and European American ( $n = 347$ ) adolescents using a traditional nomination procedure.

Sociometric item	African American	European American	$F(1, 483)$
	Mean (SD)	Mean (SD)	
Liked most	-.17 (.12)	.13 (.06)	5.38*
Liked least	-.43 (.11)	.08 (.05)	18.72**
Most popular	-.23 (.11)	.07 (.05)	5.81*
Least popular	-.26 (.12)	.04 (.05)	5.18*

\* $p < .05$ . \*\* $p < .01$ .

**Table 2**  
Correlations between social preference and reputation rated by African American and European American peers and ethnic centrality ( $n = 72$ ).

Measures	Rated by African Americans		Rated by European Americans	
	Social preference	Social reputation	Social preference	Social reputation
Ethnic centrality	.16**	.13*	-.00	.09*
SP by AA		.34**	.21**	.12**
SR by AA			.24**	.49**
SP by EA				.40**

\* $p < .05$ . \*\* $p < .01$ .

peer acceptance/rejection by AA peers were uniquely associated with high levels of African American adolescents' ethnic identity centrality while controlling for peer acceptance/rejection by EA peers as a competing predictor. No significant association between social preference as reported by European American peers and African American adolescents' ethnic identity was revealed (see Table 3).

To examine associations between African American adolescents' perceived popularity (as rated by AA and EA peers) and ethnic identity centrality, a second regression analysis was conducted. A similar pattern of results was revealed (see Table 4). Adolescents' perceived popularity as rated by African American adolescents was associated positively with higher levels ethnic identity, while controlling for perceived popularity by EA peers as a competing predictor. Perceived popularity as rated by EA peers was not significantly associated with African American adolescents' ethnic identity centrality.

**Discussion**

Adolescence is a period of increasing complexity and differentiation in developmental processes, including identity development and peer group experiences. Specifically, this period is characterized by the formation of a multi-dimensional self-system (Harter, 2006), one in which ethnicity may become increasingly salient as a variable that serves to organize peer group interactions (Graham et al., 2009; Tatum, 1997). The results from this investigation offer initial evidence to suggest that the consideration of ethnicity as a relevant context for understanding adolescent peer relations may be fruitful. This study also revealed unique associations with one dimension of self-concept (i.e., ethnic identity centrality) that may be associated with ethnic-context peer relationships.

One objective of this study was to demonstrate the need for the study of peer status in context. Researchers in this area long have recognized the importance of the peer context in the study of peer relationships (e.g., Bagwell et al., 2000), yet two recent developments have necessitated a reconsideration of these fundamental issues. Both of these developments pertain to a renewed focus on adolescents, as compared to children. First, the study of adolescent peer status has allowed researchers to examine preferences and reputations in much larger contexts than in past work (i.e., grade-wide, rather than

**Table 3**  
Regression analysis examining discriminant associations between peer acceptance/rejection nominations and African American adolescents' ethnic identity centrality ( $n = 72$ ).

Measure of social preference	$R^2$	$b$	$se\ b$	$\beta$
SP by African American peers		.23	.12	.26*
SP by European American peers		-.06	.36	-.02
Total	.06			

\* $p < .05$ .

**Table 4**  
Regression analysis examining discriminant associations between perceived popularity nominations and African American adolescents' ethnic identity centrality ( $n = 72$ ).

Measure of social reputation	$R^2$	$b$	$se\ b$	$\beta$
SR by African American peers		.25	.13	.28*
SR by European American peers		-.18	.60	-.04
Total	.07			

\* $p < .05$ .

classroom assessments; Zakriski & Prinstein, 2001). Second, developmental tasks of identity formation may make the formation of sub-groups within the overall peer context more salient and relevant for study (Tatum, 1997).

The study offers some evidence to suggest that ethnicity may be a relevant variable for understanding peer status, at least in contexts that include a sizable proportion but numerical minority of ethnic minority adolescents. Results from this study can not be extended to all African American youth, nor do results specifically inform processes specific to African American culture, as compared to different ethnic groups, or groups based on variables other than ethnicity. However, consistent with recent past research (e.g., Bellmore et al., 2007), findings indicated that when comprising a numerical minority, ethnicity may be relevant in adolescents' peer associations, and may distort traditional measures of peer status. As compared to European American students, African American students in this sample were less likely to be nominated on every peer nomination item. Accordingly, African American students were more likely to be classified as sociometrically Neglected and less likely to be classified in all other sociometric status groups. This has important implications for the use of traditional sociometric procedures in an ethnically diverse context to identify adolescents who may be at risk due to low peer status.

Another research objective of this study was to examine one correlate of peer status, ethnic identity centrality. Findings indicating discriminant associations between ethnic identity and different measures of African American adolescents' peer status offer both methodological and conceptual contributions to the literature. Methodologically, the discriminant associations with ethnic identity revealed add further validity to the distinction between overall and context-specific peer status (e.g., Bagwell et al., 2000). Conceptually, the results offer some provocative insights into the relationship between adolescents' peer interactions and a sense of identification with their ethnic group. High levels of peer acceptance and perceived popularity as reported by African American peers were significantly associated with adolescents' reports of a stronger sense of ethnic identity centrality. Naturally, this concurrent association can be interpreted in several ways. Adolescents for whom ethnic identity is central may elicit positive regard from same-ethnicity peers. This may be due either to a tendency for adolescents with high levels of ethnic identity centrality to select same-ethnicity peers for social interactions more frequently, or perhaps due to these adolescents' decision to engage in behaviors that are especially valued among same-ethnicity peers. It also may be that acceptance by same-ethnicity peers is a contributor to adolescents' developing sense of ethnic identity centrality. Past work has demonstrated the importance of positive peer interactions as a predictor of global self-esteem (Harter et al., 1997). It may be that favorable interactions with same-ethnicity peers are similarly necessary for adolescents' to develop a healthy sense of self-concept with regard to ethnic identity (Bagley, 1993).

Overall, results offer an important step towards understanding peer relations within an ethnically-diverse context. Our evidence that African American youth are categorically under-nominated when in the numerical minority suggests the need for modified nomination

procedures and analysis when conducting sociometric research on diverse populations. For instance, future research should account for biases in nomination procedures not just at the racial level (e.g., Black and White Americans) but at the ethnicity level (e.g., Mexican and Cuban Americans). In diverse settings where these distinctions are salient, we would expect to see patterns similar to those evidence in this study: members of the numerical majority should be nominated more on all items, and status in the meaningful subgroup should predict social identity variables. Similarly, social identity variables that relate to gender might be studied in reference to peer status in one's own versus another gender group. In addition, this finding suggests that interventions that target individuals with high peer status should consider the possibility that different students will be popular within different racial settings. Finally, accurately identifying high and low status individuals within each ethnicity will allow future interventions to better target low peer status individuals who are at risk for a variety of socioemotional and psychological adjustment problems.

Although the causal direction of the relationship between ethnic identity centrality and social status is as yet unknown, this association has several practical applications. First, existing data sets that have looked at ethnic identity centrality, even in the absence of explicit social status measures, can potentially be used to identify individuals for interventions which target high status adolescents. In addition, findings suggest the importance of examining ethnic identity centrality when studying norms within the African American peer group. For instance, given our finding that high ethnic identity relates to high social preference, an appreciation of which African American individuals have high ethnic identity centrality in a given group may allow researchers to identify highly influential peers within that population. While ethnic identity centrality is not highly predictive of high social status in the adolescent's ethnic group, it nonetheless may provide important information in the absence of other social status data.

Future investigations would benefit by addressing some of the limitations of this study. Using a relatively small sample of African American students prohibited the examination of differences by gender, and reduced power more generally. This is an important issue for future research efforts (Kistner, Metzler, Gatlin, & Risi, 1993). The examination of different ethnic groups also is essential to determine the generality of findings. The use of a longitudinal design would help to determine the direction of effects between ethnic identity and peer status. In addition, this study examined ethnic subgroup norms in the context of a majority European American school. Future work should examine the relationship between ethnic identity and peer status in a majority African American school. In addition, multiple indices of ethnic identity deserve further examination. In particular, ethnic identity development (e.g., exploration and commitment) should be examined, as a given adolescent's stage of development likely relates to their behaviors in the ethnic subgroup. Adolescents who are actively exploring, for instance, might embrace more social opportunities in subgroups of same-ethnic peers, as compared to adolescents who are not actively exploring their ethnic identity. Finally, because this study only examined ethnicity, it is not possible to eliminate the possibility that socioeconomic status is a confounding factor in these findings.

In sum, this research presents one of few studies that have considered the ethnic context in the study of peer status. Ethnicity is increasingly salient during adolescence as a factor related to dimensions of self-concept and the peer status hierarchy. Results demonstrated that peer status of African American adolescents within the African American peer context is uniquely related to ethnic identity centrality, while status in the European American peer context is unrelated to this variable. Greater understanding of these issues in ethnically diverse school contexts will help to explicate the experience of ethnic minority adolescents in many North American communities.

## References

- Aboud, F., Mendelson, M., & Purdy, K. (2003). Cross-race peer relations and friendship quality. *International Journal of Behavioral Development*, 27(2), 165–173. doi:10.1080/01650250244000164
- Aries, E., & Moorehead, K. (1989). The importance of ethnicity in the development of identity of Black adolescents. *Psychological Reports*, 65(1), 75–82.
- Bagley, C. (1993). Transracial adoption in Britain: A follow-up study, with policy considerations. *Child Welfare: Journal of Policy, Practice, and Program*, 72(3), 285–299.
- Bagwell, C., Coie, J., Terry, R., & Lochman, J. (2000). Peer clique participation and social status in preadolescence. *Merrill-Palmer Quarterly: Journal of Developmental Psychology*, 46(2), 280–305.
- Bellmore, A., Nishina, A., Witkow, M., Graham, S., & Juvonen, J. (2007). The influence of classroom ethnic composition on same- and other-ethnicity peer nominations in middle school. *Social Development*, 16(4), 720–740. doi:10.1111/j.1467-9507.2007.00404.x
- Benner, A., & Graham, S. (2007). The transition to high school as a developmental process among multiethnic urban youth. *Child Development*, 80(2), 356–376. doi:10.1111/j.1467-8624.2009.01265.x
- Brown, B., & Lohr, M. (1987). Peer-group affiliation and adolescent self-esteem: An integration of ego-identity and symbolic-interaction theories. *Journal of Personality and Social Psychology*, 52(1), 47–55. doi:10.1037/0022-3514.52.1.47
- Brown, B. B., & Mounts, N. (1989, April). Peer group structures in single versus multi-ethnic high schools. Paper presented at the biennial meeting of the Society for Research in Child Development, Kansas City, KS.
- Chiu, L. (1987). Sociometric status and self-esteem of American and Chinese school children. *Journal of Psychology: Interdisciplinary and Applied*, 121(6), 547–552.
- Coie, J., & Dodge, K. (1983). Continuities and changes in children's social status: A five-year longitudinal study. *Merrill-Palmer Quarterly: Journal of Developmental Psychology*, 29(3), 261–282.
- Connecticut State Department of Education (2001). Connecticut Education Facts, 2000–2001. Hartford, CT: Author.
- Dutton, S., Singer, J., & Devlin, A. (1998). Racial identity of children in integrated, predominantly European American, and Black schools. *The Journal of Social Psychology*, 138(1), 41–53. doi:10.1080/00224549809600352
- Faircloth, B., & Hamm, J. (2005). Sense of belonging among high school students representing 4 ethnic groups. *Journal of Youth and Adolescence*, 34(4), 293–309. doi:10.1007/s10964-005-5752-7
- Franzoi, S., Davis, M., & Vasquez-Suson, K. (1994). Two social worlds: Social correlates and stability of adolescent status groups. *Journal of Personality and Social Psychology*, 67(3), 462–473. doi:10.1037/0022-3514.67.3.462
- Fulgini, A., Witkow, M., & Garcia, C. (2005). Ethnic identity and the academic adjustment of adolescents from Mexican, Chinese, and European backgrounds. *Developmental Psychology*, 41(5), 799–811. doi:10.1037/0012-1649.41.5.799
- Garcia-Coll, C., Crnic, K., Lamberty, G., & Wasik, B. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development*, 67(5), 1891–1914. doi:10.2307/1131600
- Gest, S., Graham-Bermann, S., & Hartup, W. (2001). Peer experience: Common and unique features of number of friendships, social network centrality, and sociometric status. *Social Development*, 10(1), 23–40. doi:10.1111/1467-9507.00146
- Graham, S., Taylor, A. Z., & Ho, A. Y. (2009). Race and ethnicity in the peer relations research. In K. H. Rubin, W. M. Bukowski, & B. Laursen (Eds.), *Handbook of Peer Interactions, Relationships, and Groups* (pp. 394–413). New York, NY: Guilford.
- Gray-Little, B., & Hafidahl, A. (2000). Factors influencing racial comparisons of self-esteem: A quantitative review. *Psychological Bulletin*, 126(1), 26–54. doi:10.1037/0033-2909.126.1.26
- Harter, S. (1990). Self and identity development. *At the threshold: The developing adolescent* (pp. 352–387). Cambridge, MA: Harvard University Press.
- Harter, S. (1999). *The construction of the self: A developmental perspective*. New York, NY US: Guilford.
- Harter, S. (2006). The Self. *Handbook of child psychology: Vol. 3, Social, emotional, and personality development* (6th ed., pp. 505–570). Hoboken, NJ: Wiley.
- Harter, S., Bresnick, S., Bouche, H., & Whitesell, N. (1997). The development of multiple role-related selves during adolescence. *Development and Psychopathology*, 9(4), 835–853. doi:10.1017/S0954579497001466
- Hymel, S., Rubin, K., Rowden, L., & LeMare, L. (1990). Children's peer relationships: Longitudinal prediction of internalizing and externalizing problems from middle to late childhood. *Child Development*, 61(6), 2004–2021. doi:10.1207/s15374424jccp2604\_2
- Jarvinen, D., & Nicholls, J. (1996). Adolescents' social goals, beliefs about the causes of social success, and satisfaction in peer relations. *Developmental Psychology*, 32(3), 435–441. doi:10.1037/0012-1649.32.3.435
- Kistner, J., Metzler, A., Gatlin, D., & Risi, S. (1993). Classroom racial proportions and children's peer relations: Race and gender effects. *Journal of Educational Psychology*, 85(3), 446–452. doi:10.1037/0022-0663.85.3.446
- Mandara, J., Gaylord-Harden, N., Richards, M., & Ragsdale, B. (2009). The effects of changes in racial identity and self-esteem on changes in African American adolescents mental health. *Child Development*, 80(6), 1660–1675. doi:10.1111/j.1467-8624.2009.01360.x
- Miller-Johnson, S., Coie, J., Maumary-Gremaud, A., Lochman, J., & Terry, R. (1999). Relationship between childhood peer rejection and aggression and adolescent delinquency severity and type among African American youth. *Journal of Emotional and Behavioral Disorders*, 7(3), 137–146. doi:10.1177/106342669900700302
- Parkhurst, J., & Hopmeyer, A. (1998). Sociometric popularity and peer-perceived popularity: Two distinct dimensions of peer status. *The Journal of Early Adolescence*, 18(2), 125–144. doi:10.1177/0272431698018002001
- Phinney, J. (1990). Ethnic identity in adolescents and adults: Review of research. *Psychological Bulletin*, 108(3), 499–514. doi:10.1037/0033-2909.108.3.499

- Phinney, J., Cantu, C., & Kurtz, D. (1997). Ethnic and American identity as predictors of self-esteem among African American, Latino, and European American adolescents. *Journal of Youth and Adolescence*, 26(2), 165–185, doi:10.1023/A:1024500514834
- Phinney, J., & Landin, J. (1998). Research paradigms for studying ethnic minority families within and across groups. *Studying minority adolescents: Conceptual, methodological, and theoretical issues* (pp. 89–109). Mahwah, NJ: Erlbaum.
- Prinstein, M., & Cillessen, A. (2003). Forms and functions of adolescent peer aggression associated with high levels of peer status. *Merrill-Palmer Quarterly: Journal of Developmental Psychology*, 49(3), 310–342, doi:10.1353/mpq.2003.0015
- Rowley, S., Sellers, R., Chavous, T., & Smith, M. (1998). The relationship between racial identity and self-esteem in African American college and high school students. *Journal of Personality and Social Psychology*, 74(3), 715–724, doi:10.1037/0022-3514.74.3.715
- Schofield, J., & Sagar, H. (1977). Peer interaction patterns in an integrated middle school. *Social Psychology Quarterly*, 40(2), 130–138.
- Seaton, E., Yip, T., & Sellers, R. (2009). A longitudinal examination of racial identity and racial discrimination among African American adolescents. *Child Development*, 80(2), 406–417, doi:10.1111/j.1467-8624.2009.01268.x
- Sellers, R., Rowley, S., Chavous, T., Shelton, J., & Smith, M. (1997). Multidimensional Inventory of Black Identity: A preliminary investigation of reliability and construct validity. *Journal of Personality and Social Psychology*, 73(4), 805–815, doi:10.1037/0022-3514.73.4.805
- Tatum, B. (1997). *Why are the black kids sitting together in the cafeteria? And other conversations about race*. New York, NY: Basic Books.
- Walker, L., & Greene, J. (1986). The social context of adolescent self-esteem. *Journal of Youth and Adolescence*, 15(4), 315–322, doi:10.1007/BF02145728
- Wong, C. A., Eccles, J. S., & Sameroff, A. (2003). The influence of ethnic discrimination and ethnic identification on African American adolescents' school and socio-emotional adjustment. *Journal of Personality*, 71, 1197–1232.
- Xie, H., Cairns, R., & Cairns, B. (1999). Social networks and configurations in inner-city schools: Aggression, popularity, and implications for students with EBD. *Journal of Emotional and Behavioral Disorders*, 7(3), 147–155, doi:10.1177/106342669900700303
- Zakriski, A., & Prinstein, M. (2001). Sociometric status of child inpatients in clinical and normative peer groups: Is peer status in a clinical setting a useful measure of adjustment? *Journal of Applied Developmental Psychology*, 22(2), 157–173, doi:10.1016/S0193-3973(01)00074-0