

A LONGITUDINAL EXAMINATION OF RACE CENTRALITY IN AFRICAN AMERICAN  
YOUTH AND PARENTS

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## **ABSTRACT**

Adam J. Hoffman: A Longitudinal Examination of Race Centrality in African American Youth and Parents

(Under the direction of Beth Kurtz-Costes)

For most African Americans, racial identity is an important aspect of their individual identity. Racial centrality, a dimension of racial identity, is protective of psychosocial well-being among African Americans. The current study explored the stability of racial centrality in African American youth and their parents, and the relationship between parent and child racial centrality across time. African American youth ( $N = 379$ ) and parents completed surveys when youth were enrolled in Grades 5, 7, 10, and 12. Results indicated that individual differences in parents' and youths' racial centrality were stable across time. Although bivariate correlations confirmed positive relationships between parents' and youths' identity after Grade 7, only a few of these relationships were significant in cross-lag panel analyses. Results provide novel insight about the development and stability of racial centrality in African American youth and the effect that parents have in shaping their children's racial identity.

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# **A LONGITUDINAL EXAMINATION OF RACIAL CENTRALITY IN AFRICAN AMERICAN YOUTH AND PARENTS**

## **INTRODUCTION**

Adolescence is a turbulent developmental period marked by the formation of identity for all adolescents (Erikson, 1968). In conjunction with normative identity development during adolescence, African American youth also begin to explore and conceptualize an identity that is based on their racial group membership (Sellers, Copeland-Linder, Martin & Lewis, 2006). Whereas many characteristics of the child are seminal in the formation of racial identity during adolescence, researchers have begun to consider how external social forces may impact the development of racial identity in youth. One such social influence is parents and their own racial identity. Value socialization theory postulates that parents are likely to communicate their values, ideas and beliefs to their children, thereby influencing their child's development through adolescence (Maccoby, 1992). Racial identity is one such value that parents are likely to communicate to their children, thus promoting their child's racial identity development (Hughes et al., 2006).

In recent decades, research in racial identity has grown exponentially (Cokley, 2005). However, most studies are cross-sectional and examine racial identity relative to various psychosocial correlates at a single time point (Pahl & Way, 2006), and few studies have examined the relationship between the development of parents' racial identity and youth's racial identity. Rarely have researchers examined how proximal social forces such as parents can influence the development of racial identity in youth across time. In the current study, racial



centrality, a specific dimension of the Multidimensional Model of Racial Identity (MMRI) (Sellers, Smith, Shelton, Rowley, & Chavous, 1998), was examined longitudinally across a seven-year span to understand its stability from late childhood to late adolescence. Further, the current study explored the relationship between parents' and youths' racial identity, and whether parent and child racial identity were related to changes in the other's racial centrality over time.

### **Importance of Racial Identity Development**

Given the growing evidence demonstrating the importance of racial identity in African Americans, Sellers and colleagues (1998) developed the MMRI. The MMRI is distinct from other models of racial identity, as it is specifically tailored to the unique historical and cultural contexts and experiences of being African American (Sellers et al., 1998). In their multidimensional model, Sellers et al. (1998) outlined four dimensions that work jointly to contribute to racial identity in African Americans; (1) racial salience, (2) racial centrality, (3) racial regard (public and private), and (4) racial ideology. These dimensions were garnered from existing theories of group identities with various affective, cognitive, and ideological components. Of particular interest to the current study is centrality, which is the degree to which individuals define themselves with regard to their racial group membership (Sellers et al., 1998).

Over the past three decades, racial identity research has established that a strong racial identity in African Americans facilitates positive psychological functioning and educational achievement (Baldwin, 1984; Byrd & Chavous, 2009; Neblett, Rivas-Drake, & Umaña-Taylor, 2012; Rowley, Sellers, Chavous, & Smith, 1998). The effects of strong racial identity can be two-fold, as a strong racial identity has been related to both direct and indirect links to overall

psychological health and well-being (Baldwin, 1984; Cross, 1991; Cross, Parham, & Helms, 1998). Direct links show that youth with higher levels of racial identity demonstrate lower levels of anxiety, paranoia, and depressive symptomology than peers with lower levels (Carter, 1991). Byrd and Chavous (2009) found that African American adolescents with strong racial identities, especially those in neighborhoods with high economic support, had higher academic achievement than peers with weaker racial identity, and in a longitudinal study of low-income, urban African Americans and Latinos, youth who reported stronger racial/ethnic connectedness had higher grade point averages than other youth (Altschul, Oyserman, & Bybee, 2006). Racial identity has also been shown to have indirect links to psychological well-being, mostly in the form of a psychological buffer against the pernicious impacts of racial discrimination on African American youths' psychosocial well being (e.g., Wong, Eccles, & Sameroff, 2003). Although not all of these studies assessed racial centrality specifically as conceptualized by Sellers et al. (1998), their measures of racial identity closely mirror that of racial centrality—the degree to which race is important to youth as an aspect of their identity.

In studies in which racial centrality was measured as conceptualized by Sellers et al., researchers also found that racial centrality promotes resilience among African American youth who experience racial discrimination (Neblett, Shelton, & Sellers, 2004; Neblett, Smalls, Ford, Nguyen, & Sellers, 2009; Sellers et al., 2006). Racial centrality is also linked to other positive outcomes. For example, high school youth who were higher in racial centrality had higher school grades and reported stronger school connectedness than youth who were lower in racial centrality (Chavous, Rivas-Drake, Smalls, Griffin & Cogburn, 2008).

Sellers et al. (1998) noted that centrality tends to be a stable trait across contexts, especially in comparison to other dimensions of racial identity outlined in the MMRI, like racial

salience. However, based on assumptions underlying most identity theories and based on the substantial physical, social, cognitive, and contextual changes that youth experience in early adolescence, we hypothesized that racial centrality is somewhat variable across this developmental period and stabilizes as youth transition to middle and late adolescence.

In considering influences on the development and stability of racial centrality in youth, both normative and non-normative processes should be evaluated as potential contributors. Normative influences have to do primarily with the development of social cognition. In terms of non-normative influences, I explore how socializing agents—particularly parents—influence racial identity development.

### **Normative Influences on the Development and Stability of Racial Centrality**

Theorists have suggested that racial identity is dynamic and continuously changing, especially during adolescence (e.g. Phinney, 1989; Quintana, 2007). For example, Quintana (1994) developed a model of ethnic perspective-taking ability that depicts racial identity as developing and increasing with age. Quintana's (1994) model, based in Selman's (1980) theory of social perspective-taking ability, suggests that as youth's racial and ethnic cognition develop from childhood to adolescence, a nascent racial identity is formed and burgeons as youth move from a more passively ascribed sense of self-identity to an actively expressed achieved sense of ethnic identity.

Other developmental identity theorists (Erikson, 1968; Hart & Damon, 1985) suggest that adolescence is a time of critical social cognitive development, when adolescents begin to integrate and synthesize experiences to develop a more nuanced understanding of the self and others on the basis of social groups such as racial or ethnic groups. Although Quintana's (1994) model specifically addressed racial/ethnic identity development of Mexican American youth, his

model has implications for racial identity development of African American youth in that adolescence is a critical window when racial identity increases in racial/ethnic minority youth.

Social cognitive development has been heavily endorsed as laying the foundation for the development of racial identity as youth age from childhood through adolescence, as suggested by many racial identity stage theorists and scholars (Cross, 1991; Phinney, 1989, 1993; Umaña-Taylor & Fine, 2004). Sellers et al. (1998) argued that the dimensions of the MMRI are not entirely static and can change as a result of an amalgamation of various social and developmental forces over time. Although theorists have posited change over time in racial identity, few longitudinal studies have tested changes in racial centrality.

Researchers who have employed longitudinal analysis to study racial identity rarely span beyond three years. Altschul et al. (2006) found increases in racial-ethnic identity connectedness scores, a close construct to racial centrality, from Grade 8 to Grade 9 in African American and Latino youth. Measuring ethnic identity in early and middle adolescence, French, Seidman, Allen, and Aber (2006) found African Americans and Latino Americans had lower levels of group esteem than European Americans but had greater increases in group esteem than European Americans over a three-year period. A four-year longitudinal study of ethnic identity exploration in Black and Latino youth in middle and late adolescence, revealed a quadratic trend that suggested decelerating levels of identity exploration after Grade 10 (Pahl & Way, 2006). In a three-year longitudinal study, Native Americans reported increased cultural identity and self-esteem in late adolescence (Whitesell, Mitchell, & Spicer, 2009). These studies examined developmental changes in aspects of racial identity.

The current study is a novel attempt to explore the stability of individual differences in racial centrality from late childhood to late adolescence. In addition to examining the stability of

racial centrality across time, we also examine the relationship between parents' and youth's racial centrality, both in terms of concurrent correlations and as they each influence changes in racial centrality of the other across time.

### **Parent Race Socialization as a Non-Normative Influence in the Development of Youths' Racial Centrality**

Umaña-Taylor and Fine (2004) describe ecological factors (e.g. school and community characteristics) and socializing agents (e.g. parents, peers, and teachers) as non-normative factors that can influence racial/ethnic development in adolescents. Arguably, parents may be one of the most important socializing agents in youths' racial identity development from childhood to late adolescence. Research has revealed that youth who receive more messages of race socialization from their parents are more likely to have stronger and more advanced racial identity than youth who receive less racial socialization (Demo & Hughes, 1990; Hughes et al., 2006; Marshall, 1995; O'Connor, Brooks-Gunn, & Graber, 2000; Stevenson, 1995; Umaña-Taylor & Fine, 2004).

Marshall (1995) found that African American adolescents whose parents reported engaging in more frequent messages of racial socialization were more likely to have more developed racial identity compared to youth whose parents reported less frequent messages of race socialization. Black mothers who socialized their daughters on the basis of cultural race socialization (i.e. cultural history, distance and emersion) were more likely to engage and choose media (e.g. music or television shows) that were targeted for Black youth, suggestive that parents who socialize their children about race are likely to have a stronger racial identity and choose media that are targeted toward the racial group to which they belong (O'Connor et al., 2000). In an earlier study, Black youth who had strongest feelings of closeness to other Blacks were socialized by their parents in an integrative/assertive manner (i.e., parents relayed messages of racial pride and the importance of Black heritage, of getting along with and understanding

Whites, and of standing up for rights) (Demo, 1990). Finally, a recent review of the parent ethnic/racial socialization literature showed that a rich profusion of studies have demonstrated that parents are strong and consistent socializing agents in ethnic/racial identity formation from early childhood into adulthood (Hughes et al., 2006).

### **Relationship Between Parent and Youth Racial Centrality**

While a plethora of research surrounding racial identity has surfaced in developmental literature in the past 20 years, an area that remains relatively unexamined is the relationship between parents' and youth's racial identity. Two competing theories have emerged from the literature examining parents' and children's values and beliefs and the extent to which these either converge or diverge as the child ages to adulthood. According to the developmental perspective, at younger ages youth work to establish differences from parents in order to establish an individual identity and an independent sense of self. However, as youth age to adulthood, youth's and parents' values and beliefs become more similar (Erikson, 1993). In contrast, socialization theory posits that the relationship between the values and beliefs of parents and those of their children diminishes over time. Similarities between parent and child values and beliefs at earlier developmental periods are expected to be the strongest, as parents and children have the most interaction and spend the most time with each other earlier in life. However, as the child ages and develops, new socializing agents such as peers, teachers, and others, coupled with increased autonomy, may allow for divergence of influence from parents' values and beliefs (Miller & Glass, 1989). Little empirical support for socialization theory and the divergence of parents' and children's values as the child ages through adolescence has been found. Empirical support for Erikson's (1993) developmental perspective has emerged in the literature and is presented.

Research in values, attitudes and beliefs of parents and youth that are unrelated to race have revealed that parents and youth are likely to share many of the same values, beyond childhood and into adolescence and emerging adulthood (Flor & Knapp, 2001; Jennings, Stoker, & Bowers, 2009; Jodl, Michael, Malanchuk, Eccles, & Sameroff, 2001; Leonard, Cook, Boyatzis, Kimball, & Flanagan, 2013). For example, parents and adolescents are likely to share similar religious beliefs and behaviors, especially those who engage in more discussion or transaction about their faith (Flor & Knapp, 2001; Leonard et al., 2013). Similarly, youth are likely to adopt their parents' political orientations, particularly if the family is highly politicized and youth receive consistent cues from their parents across time (Jennings et al., 2009). Finally, parents' and adolescents' academic and sports values and beliefs are likely to be similar, especially if the adolescent has a positive identification with the parent (Jodl et al., 2001). It is important to note that in these studies, the relationships between parent and child values were modest. However, taken together, these results suggest that adolescents and their parents often share many of the same values or beliefs, especially among parent/youth pairs who have a positive relationship and who frequently discuss that value or belief. These findings provide indirect support for the hypothesis that parents and youth have similar racial identities, especially during adolescence.

### **Bidirectional Influence Between Parents and Youth Across Time**

Though a positive relationship between parent and youth racial identity is probable, what is the direction of influence in this relationship? Classic value socialization theory would suggest that parents' racial identity is transmitted to or internalized by the child, indicating a unidirectional transmission model of causality. However, the unidirectional transmission model was found to be problematic as the model implies that children are static or passive products of

their parents' own internalized values and beliefs and do not contribute to or influence their parents' values and beliefs (Lewis, 1990; Loulis & Kuczynski, 1997).

Today, developmental and value socialization theories posit bidirectional models of causality. In bidirectional models, the parent and child are considered to be independent and dynamic agents who act on each other in a process of reciprocal influence (Kuczynski, Marshall, & Schell, 1997). Bidirectional models not only predict concurrent similarity in parent and child values, but also posit that prior outcomes of one family member will influence the others' future outcomes (Lewis & Painter, 1974). A specific bidirectional model, the transactional model, has been cultivated as a method of observing how parents and youth change as they interact across time (Kuczynski et al., 1997). An examination of parents' and youths' racial centrality using a transactional model can shed new light on the understanding of whether and when parents and youth influence changes in each others' racial centrality across time.

With regard to racial identity development in African American youth, we propose that directions of influence between parents and youth would not necessarily be expected to be bidirectional throughout development, as the youth ages from late childhood to late adolescence. Because racial identity is probably developing for most children in late childhood, and their awareness of race-related events outside the home such as discrimination experiences is only rudimentary, it is probable that these youth are not yet influencing their parents' racial identity. In early and mid-adolescence it may be that both parents and youth are influencing each other's racial identity because of youth's more sophisticated understanding of race-related events. In late adolescence, it is possible that parents' influences on their children's racial identity are decreasing because of greater youth autonomy and more time spent with other racial identity socializers such as peers.



Conversely, youth may be influential in changing their parents' racial identity. For example, in late adolescence youth may influence changes in their parents' racial centrality, as they are more likely to be able to engage in more adult-like relationships and conversations with their parents. If youth share with their parents some of their out-of-home positive and negative race-related experiences, parents may be likely to reassess their own racial centrality as a function of the racial centrality of their adolescent children. Research has shown that youth who report more acts of discrimination are more likely to report more socialization from their parents (Miller & MacIntosh, 1999). Therefore, as aging youth are able to perceive new forms of race related experiences and talk with their parents, parents may engage in more racial socialization and subsequently may be influencing their own racial identity. Though this argument primarily addresses child influences on parent racial socialization rather than parent racial identity, it provides a logical step toward the notion that children may be influencing their parents' racial identity.

### **The Present Study**

Addressing existing gaps in research on racial identity, in the present study I aimed to (1) examine the stability of racial centrality in parents and youth as youth age from late childhood (Grade 5) to late adolescence (Grade 12), (2) explore if/when a concurrent relationship between parent and youth racial centrality emerges, and (3) assess if and when parents and youth influence each other's racial centrality across time. Based on prior theory (Quintana, 1994), I hypothesized that youth's racial centrality scores would not be stable until early adolescence (Grade 7), when youth cultivate the ability to integrate and synthesize their own and others' experiences across various social contexts to develop a sense of self on the basis of their racial

group membership. As theorized by Sellers and colleagues (1998), parents' racial centrality scores were hypothesized to be stable across time.

Second, because of early instability in youths' racial centrality, I hypothesize no concurrent relationship between parent and youth racial centrality until youth are in late adolescence (Grades 10 and 12). Beginning in late adolescence, I expect parents' and youth's racial centrality will be positively correlated. Finally, across the seven-year span from Grade 5 to Grade 12, I hypothesize that a bidirectional transactional pattern of influence between parents' and youths' racial centrality will emerge. I expect significant parental influence on the child's racial centrality from late childhood (Grade 5) to early adolescence (Grade 7) and from early adolescence to mid-adolescence (Grade 10). I expect youth will significantly influence change in their parents' racial centrality from early adolescence to mid-adolescence (Grade 7 to Grade 10) and mid-adolescence to late adolescence (Grade 10 to Grade 12).

## **Method**

### **Participants**

Data for the project were drawn from the Youth Identity Project, a longitudinal study that focused on academic achievement and racial identity development in African American youth. A sample of 379 African American youths (215 girls, 164 boys) who had participated in at least one of the four waves provided data for the current study. Students were recruited in Grade 5 (*M* age = 11.14 years old) and were asked to participate again in Grades 7, 10 and 12. Data from all four assessments were included in the current report. For the study, 78% of the invited African American fifth grade students returned signed consent forms, with 97% (*n* = 381) agreeing to participate. The retention rate for the participants between Grades 5, 7, 10 and 12 was 79%, 82%, and 81%, respectively.

Data were collected in an urban school district in the southeastern region of the United States. Students were originally recruited from seven elementary schools and later attended nine middle schools and 11 high schools. The African American student populations ranged from 73% to 99% in the elementary schools, 48% to 95% in the middle schools, and 27% to 92% in the high schools. Youth were initially recruited in three cohorts during the 2002-2003, 2003-2004, and 2004-2005 school years.

Data are reported for 268 parents. Of those parents, 85% were mothers, 6% were fathers, 5% were grandmothers, and 4% were legal guardians or other relatives. If the parent reporter changed for a given youth across the four waves (e.g., mother participated in Grades 5 and 10, and father participated in Grade 7), data were used from the most frequent responder. All parents whose data are included in this report self-identified as African American. The median parent-reported education level was “*some technical school*,” and 35% of parents had attended college or were college graduates with a bachelor's degree or higher. In terms of household income, 61% of the participants came from households that made \$29,999 or less per year; 24% made between \$30,000 and \$59,999 per year; and 15% made \$60,000 or more per year when youth were in Grade 5.

### **Procedure**

Letters explaining the goals of the study were distributed to students at each school. The letter detailed rationale and logistical information about the study and extended an invitation for the child and caregiver (parent) to participate in the study. All student questionnaires were completed at school in small groups at a time and location (e.g. library or resource room) that was deemed suitable by school staff. For younger participants (Grades 5 and 7), the instructions for completing the questionnaires were verbally read by a trained research assistant.

Questionnaires were completed in one session lasting approximately 30 minutes. Upon completion of the session, the research assistant thanked the participants and distributed incentives (small toys such as a yoyo or flashlight in Grade 5; a \$5 gift card in Grade 7; \$10 gift cards in Grades 10 and 12).

Packets including the parent questionnaire and a stamped, return-addressed envelope were mailed to students' homes and were completed by the parent or caregiver of the student. Once the laboratory received a completed questionnaire, an incentive (a gift card to a local grocery store) and thank you note were mailed to the parent.

### **Measures**

Data for the current study use student reports of racial centrality, parent reports of racial centrality, and family demographic information. Other constructs were assessed in the child and parent questionnaires that are not included in this report.

**Racial centrality.** Racial centrality was measured in both students and parents using six items from the subscale of racial centrality from the Multidimensional Inventory of Black Identity (Sellers et al., 1998). These items assessed the extent to which being African American is central to the respondent's identity and definition of the self. The items were measured on a 5-point Likert-like scale (1 = *strongly disagree*; 5 = *strongly agree*) where youth and parents rated how much they agreed with each item (e.g., "Being Black is an important part of my self-image"). Some items were edited slightly so as not to be beyond the reading level of fifth graders. Items were averaged to yield a single score, with higher scores indicating greater racial centrality. The alpha reliabilities for this scale at Grades 5, 7, 10, and 12 were .70, .73, .80, and .81, respectively. Alpha reliabilities for racial centrality of parents were .76, .72, .77, and .68, respectively.

**Household income.** Household income was reported by the parent on either an annual or weekly scale. The annual scale used increments of \$10,000 ranging from “less than \$10,000 per year” to “more than \$100,000 per year,” and the weekly scale was approximately parallel to the annual scale for income (“less than \$200 per week” to “more than \$2,000 per week”).

**Parent education.** Educational attainment of the parent was measured on a 10-point scale and reported by the parent. Responses of the scale ranged from “less than high school” to “doctoral or professional degree.” Measures of household income and parent education were assessed at the first wave (i.e., when youth were in Grade 5).

## Results

Table 1 shows the means, standard deviations, sample size and bivariate correlations for child and parent racial centrality scores for each wave. Across the time points, child racial centrality scores were relatively stable ( $r$ s range from .18 to .57,  $p < .05$ ). Parent racial centrality scores were moderately to highly correlated across time ( $r$ s range from .48 to .63,  $p < .01$ ). Child racial centrality scores were significantly correlated with parent racial centrality scores at Grades 10 and 12, providing preliminary evidence in support of Hypothesis 2 (child and parent racial centrality at Grade 10,  $r = .25$ ,  $p < .01$  and child and parent racial centrality at Grade 12,  $r = .26$ ,  $p < .01$ ). Also, significant correlations between child/parent racial centrality and subsequent child/parent racial centrality were found providing support for Hypothesis 3 (parent racial centrality at Grade 7 with child racial centrality at Grade 10,  $r = .19$ ,  $p < .01$ , parent racial centrality at Grade 10 with child racial centrality at Grade 12,  $r = .28$ ,  $p < .01$ , and child racial centrality at Grade 10 with parent racial centrality at Grade 12,  $r = .23$ ,  $p < .01$ ). In sum, these findings provide preliminary support for study hypotheses and warrant further exploration.

### Repeated Measures Autoregressive Cross-lagged Panel Design

A repeated measures autoregressive cross-lagged panel analysis (Dwyer, 1983) was used to allow us to simultaneously examine the stability of individual differences in racial centrality, the relationship between youths' and parents' reports at each wave, and the influence of parents' and youths' racial centrality in predicting each others' subsequent racial centrality, while controlling for household income and parent education. The autoregressive cross-lagged panel analysis is a transactional model of causality used to examine paths of possible influence over time. In other words, transactional models localize causality by examining the pattern of recurrent reciprocal interchanges between parents and youth across time (Kuczynski, 2003).

First, a baseline model predicted Time 1 measures of child and parent racial centrality, estimated with family income and parent education as control variables. Time-adjusted stability coefficients of racial centrality were predicted for both child and parent (i.e. Time 1 predicted Time 2, and Time 2 predicted Time 3, etc.). Then, cross-lagged coefficients of child to parent and parent to child racial centrality scores were added to the model (i.e. Time 1 Parent predicted Time 2 Child, and Time 1 Child predicted Time 2 Parent, etc.). Finally, because it was expected that child and parent racial centrality would be similar at each time point, within-time residual correlations were added to the model (e.g. correlating Time 1 Child and Time 1 Parent racial centrality scores). The fit of the initial model was poor,  $\chi^2(24, N = 379) = 74.45, p < .001$ .

Racial identity theory (Sellers et al., 1998) would suggest that racial centrality is a relatively stable trait in adults. Thus, two direct prospective paths were added to the model, Time 1 Parent Racial Centrality predicting Time 3 Parent Racial Centrality, and Time 2 Parent Racial Centrality predicting Time 4 Parent Racial Centrality. These additional paths resulted in a significant improvement in the model ( $\chi^2(22, N = 379) = 35.61, p < .001$ ), as confirmed by a Likelihood Ratio Test. Finally, to test for possible model misspecifications with the control

variables, LaGrange multipliers were estimated, and one direct prospective path was added. A path from Family Income to Time 2 Parent Racial Centrality was added to the model. A Likelihood Ratio Test indicated that the addition of this path resulted in a significant improvement in model fit. The final model fit the data well,  $\chi^2(21, N = 379) = 30.06, p = .09$ ; CFI = .98; TLI = .95; RMSEA = .03; SRMR = .04 (see Figure 1).

According to Hypothesis 1, individual differences in parents' racial centrality scores would remain stable across time, while individual differences in youth's racial centrality would not stabilize until Grade 7. Results from the model provided partial support for Hypothesis 1. Individual differences in both parents' and youths' racial centrality were stable across all four time points.

Hypothesis 2 predicted that parent and child racial centrality would be concurrently correlated in Grades 10 and 12 but not in Grades 5 and 7. To examine the within time relationship between child and parent racial centrality scores, the within time residual correlations from the model were observed. Results from the model provided partial support for Hypothesis 2: Child and parent racial centrality scores did not predict each other in Grade 5 ( $r = .08, p = .20$ ) or Grade 7 ( $r = .10, p = .13$ ), as hypothesized. When youth were in Grade 10, there was a small but significant positive correlation between parent and child racial centrality scores ( $r = .18, p < .05$ , see Figure 1). However, once youth reached Grade 12 the relationship between youth and parents is lost ( $r = .10, p = .26$ ).

Finally, in Hypotheses 3 it was posited that parents and youth would influence each other's racial centrality. We anticipated that parents would have significant influence on youth's racial centrality development from Grade 5 to Grade 7 and from Grade 7 to Grade 10, and youth would have significant influence on parents' racial centrality scores from Grade 7 to Grade 10

and from Grade 10 to Grade 12. With all prior relationships controlled, the cross-lagged paths from the model revealed that the transmission of influence was unidirectional, such that parents' racial centrality influenced youths' racial centrality development in middle adolescence. Parents' racial centrality when their children were in Grade 7 predicted youth's Grade 10 racial centrality. Youth's racial centrality scores did not predict their parents' subsequent racial centrality across any of the test intervals. In contrast to results from the bivariate correlations, the cross-lagged paths do not support Hypothesis 3, as it was anticipated that both parent and child racial centrality scores would predict each other's racial centrality development. In other words, a unidirectional transmission of influence in racial centrality was observed, as opposed to a bidirectional transmission of influence.

## **Discussion**

The results from this study provided one of the first longitudinal examinations of racial centrality development and stability in African American youth and their parents from late childhood to late adolescence. Both parent and youth reports of racial centrality were stable across time. Parents demonstrated significant influence on their child's racial centrality development as youth aged from Grade 7 to Grade 10, and, a weak but significant relationship between parents' and youths' racial centrality was observed when the youth were in Grade 10. Contrary to hypotheses, in cross-lagged panel analyses, youths' racial centrality was unrelated to changes in their parents' racial centrality across any of the time intervals. However, from the bivariate correlations results revealed that youths racial centrality in Grade 10 were significantly related to their parents' racial centrality when the youth were in Grade 12 ( $r = .22, p < .01$ ).

### **Longitudinal Stability of Racial Centrality in Youth and Parents**



Results revealed that parents' and youths' racial centrality scores were stable over a seven-year period, as youth aged from late childhood to late adolescence. Stability in parents' reports were expected as Sellers et al. (1998) predicted that racial centrality was a stable trait, perhaps the most stable of all of the dimensions of the MMRI. It was expected that youth's racial centrality scores would not be stable from Grade 5 to Grade 7, given youths' emerging racial identity formation at this age. However, stability of racial centrality scores in youth at this early stage of racial centrality development was observed. This result suggests that while other dimensions of African American racial identity may still be developing and changing, racial centrality in Grade 5 is stable, and individual differences in youths' racial centrality scores are maintained as youth enter early adolescence. However, it is important to note that the path from Grade 5 to Grade 7 racial centrality is the lowest significant stability coefficient in the model (.31,  $p < .001$ ), and that youth's stability coefficient values do not appear to approach parents' values until racial centrality is estimated from Grade 7 to Grade 10. This result could be suggestive of nearly formed racial centrality as youth age from Grade 5 to Grade 7.

This early stability in this dimension of racial identity is not surprising, as Sellers et al. (1998) suggest that racial centrality addresses questions of significance of being African American and the youth's life. This dimension, racial centrality, relies on the youth to only need the ability to report the significance of racial group membership in their own lives, not the lives of others. Conversely, the other dimensions of the MMRI (e.g. racial regard and racial ideology) question the meaning that other individuals attribute to being African American. These dimensions may require more advanced development of perspective taking of others and their own global views of what it means to be African American. Therefore, it could be suggested that racial centrality may develop and become stable earlier than other dimensions of African

American racial identity, as it only relies on the perception of significance of race in relation to the self.

It is also important to acknowledge the stability of racial centrality in the parents in our sample. Whereas much research has examined racial identity in youth in recent years, the longitudinal stability and development of racial identity in parents (adults) remains relatively unexamined. Results revealed that racial centrality in parents was stable as their children aged from Grade 5 through Grade 12. These results provide empirical support for the theoretical suggestion of Sellers et al. (1998) that individual differences in racial centrality are stable across time.

Although individual differences in racial centrality were stable across time in both youth and their parents, it is important to consider what factors might lead to stability, particularly among youth participants. Data for this study were collected from parents and youth from a predominantly African American, urban community with a long history of prominent and wealthy African Americans in local businesses and politics. Therefore, it may not be surprising that stability in racial centrality of youth was observed as early as Grade 5. African American cultural events and leaders in the community are likely to communicate frequent cues to residents that could promote their racial group membership as a central and important part of their overarching identity from an early age. However, racial centrality may not be as stable in African American youth who live in rural settings without prominent African American populations or leaders who are active in the community. It is possible that youth from such communities have less access to various non-normative and contextual factors, and therefore decide upon the relative importance or unimportance of race to their personal identity at a later point developmentally.

Another explanation for early stability in youth's racial centrality with regard to the sample could be the racial demographics of the schools they attended. All youth in Grades 5 and 7 attended predominantly African American schools. These schools may be more likely to teach and celebrate the history and contributions of African Americans in American history. Attending a predominantly African American school that emphasizes and teaches students about the important impacts that African Americans have made in American history could foreseeably lead to earlier development of racial centrality in youth.

Finally, it is important to recognize the socio-political climate of the United States at the time these data were collected and its potential contribution to the stability of racial centrality in youth and parents. Youth and their parents in our sample witnessed a defining moment in United States history when Barack Obama became the first African American to be elected President of the United States. This event could have profound impacts on the development and stability of racial centrality, as African American youth and their parents may have been more likely to discuss racial heritage and pride as well as other race-related matters. Such discussions could have led youth to consider the importance of their racial identity at an earlier age than might have occurred otherwise.

### **Relationship Between Parent and Youth Racial Centrality**

With theoretical guidance from Erikson's (1993) developmental perspective of parent-child relationships of values and beliefs and empirical guidance from results that have shown parents and youth often share the same values and beliefs (Flor & Knapp, 2001; Jennings et al., 2009; Jodl et al., 2001; Leonard et al., 2013), we proposed that a concurrent relationship between parents' and youth's racial centrality might appear in mid-adolescence (Grade 10) and late adolescence (Grade 12). Our data partially supported this hypothesis, as youths' and parents'

racial centrality showed a small but significant relationship in Grade 10, and bivariate correlations were significant between parent and youth reports in both Grades 10 and 12. However, in the cross-lagged panel analysis, in which the variability of all prior paths were controlled, parent and youth racial centrality were unrelated when youth were in Grade 12.

While the lack of relationship between parent and youth racial centrality at Grade 12 was not expected, it could be explained by value socialization theory. According to socialization theory, as youth age into adulthood, an increased divergence of parent and child values emerges as youth distance themselves from their parents and establish autonomy (Miller & Glass, 1989). As youth diverge from their parents' values and beliefs, other socializers such as peers extracurricular activities, and social media could become increasingly influential.

It is important to note that the bivariate correlation matrix suggested that youth and parent racial centrality were significantly correlated when youth were in Grade 12; however, once prior paths were accounted for in the cross-lag model, the relationship was smaller and no longer significant. It could be the case that there is a significant relationship between youth and parent racial centrality at Grade 12, but due to the highly controlled nature of the cross-lagged model (i.e. controlling for prior youth and parent racial centrality and prior influence of the other's racial centrality) the common variance between youth and parent reports in Grade 12 was reduced to become nonsignificant.

### **Direction of Influence Between Parents and Youth**

Using value socialization theory as our theoretical guide, we hypothesized that youth and parents would have a bidirectional relationship in the influence of shaping each others' identity.

Given youth's newly developed racial identity at Grade 5, we suggested that parents would exert an early influence on youth's subsequent racial centrality development in Grade 7, but that youth would not influence parents. Once youth were in Grade 7, we proposed that both parents and youth would have significant influence on each others' subsequent racial centrality. Finally, as the influences of extra-familial socializers (e.g., peers; media) increase in later years of adolescent development (i.e., Grade 10 to Grade 12), we hypothesized that parents would no longer significantly influence their children's racial centrality but that youth would still significantly influence their parents' racial identity.

Despite prior theory suggesting a bidirectional influence between parents and youth, results from our data suggested that the relationship of influence between parents and youth is unidirectional, such that parents influenced youth as they transitioned from middle to high school (Grade 7 to Grade 10), but youth's racial centrality was unrelated to subsequent centrality of their parents. One explanation for the lack of youth influence on parent racial centrality change could be through the aging-stability thesis (Glenn, 1980). This thesis suggests that attitudes, beliefs and values are subject to various degrees of change as youth develop from adolescence to adulthood. However, changes in attitudes, beliefs and values tend to become more immutable as people age through early adulthood and establish a stable lifestyle (Glenn, 1980). As depicted in the aging-stability thesis, it could be that parents' racial centrality is an established and solidified construct and is relatively impervious to the influence of their children's racial centrality development.

Interestingly, the lag time between Grade 7 and Grade 10 was greater (three years) than the lag times between Grade 5 and Grade 7, and between Grade 10 and Grade 12. Thus, a significant effect of parents' racial centrality on their youth was detected in spite of this greater

time lag. This result suggests that even though it was across a longer time period, Grade 7 to Grade 10 is a critical time when parents are significantly influencing their youth's racial centrality development. However, it must be noted that results from the bivariate correlations showed significant relationships from parents' Grade 7 to youth's Grade 10 racial centrality, parents' Grade 10 to youth's Grade 12 racial centrality, and youth's Grade 10 to parents' Grade 12 racial centrality. Thus, use of the cross-lag panel analyses, which controlled for all hypothesized paths, may have obscured true relationships between parents' and youth's racial centrality across time.

Both the correlation analyses and the cross-lagged panel analyses showed little shared variance between parents and their children at Grades 5 and 7. Given these findings, it may be important to consider what other non-normative or contextual factors could be influencing and shaping youth's racial identity development. Racial make-up of the community or school has been shown to have effects on the development of racial identity (Byrd & Chavous, 2009; Chavous, 2000; French, Seidman, Allen, & Aber, 2000). Personal characteristics might also be important: Adams, Kurtz-Costes, and Hoffman (2014) summarized empirical research linking racial identity to skin tone, such that youth with the lightest and darkest skin tones may have stronger racial identities than their peers with medium skin tones. A child who is lighter-skinned than everyone else in his/her family might develop strong racial centrality, emphasizing racial group membership, as a way to feel connected to peers and family members. Finally, current and historical race relations in the country and region are other important contextual factors that may influence the development of racial identity in youth (Umaña-Taylor & Fine, 2004). Highlighted here are only a few of a myriad of non-normative factors that may play important roles in the formation of racial centrality in African American youth.

## **Directions for Future Research**

Future research might examine potential mediating mechanisms that drive the relationship and influence of both parents and youth on each others' racial centrality. Much of the literature cited examining the relationship between parents and youth on various values and beliefs suggested that youth who had higher quality relationships or positive identification with their parents were more likely to share similar beliefs (Flor & Knapp, 2001; Jennings et al., 2009; Jodl et al., 2001; Leonard et al., 2013). Research examining the quality of the parent-child relationship might further inform our understanding of changes in racial identity among African American youth and their parents.

Given the robust evidence that parent racial socialization influences racial identity formation in youth (Hughes et al., 2006), researchers should investigate how the type and frequency of messages youth receive from their parents may mediate the relationship of influence between youth and parents. Another mediating mechanism that may play an important role in the extent to which parents and youth influence each other could be the social climate of the neighborhood in which the parent and child live. Research on various child and parent outcomes, including racial socialization, has demonstrated that the social climate of the neighborhood may be a key mediator between parents' and children's racial identity (O'Brien Caughy, Nettles, O'Campo & Fraleigh Lohrfink, 2006). From these results it could be suggested that youth's and parents' racial identity may be more similar if they live in a neighborhood with a positive social climate, where racial group membership is likely to be valued.

Another avenue of exploration for future research is to study who else could be making meaningful impacts on the development of racial identity in youth. Although our adult sample was nearly entirely comprised of parents (91% were mothers or fathers of the youth), it may be

fruitful for future studies to examine who in the youth's lives may be a source of influence on their racial identity. For example, Sanders Thompson (1994) found that race socialization from "other adult family members" was more strongly correlated with youth's racial identity than race socialization from their own parents. Looking beyond the family, as youth develop into later adolescence and work to establish autonomy from their parents, peer friendships may be important in the consideration of influences on youth's racial identity development. Datnow and Cooper (1996) found through a qualitative study that supportive peer networks of African American youth who attended predominantly White schools fostered a host of positive outcomes, including racial identity. Given the increasing importance of peers in adolescence, investigations into the role and influence of peers on the development of youth's racial identity could be advantageous.

Finally, much about the longitudinal stability and development of the dimensions of the MMRI remains unknown. An understanding of the stability of other dimensions of the MMRI, in particular racial ideology and racial regard, could have important implications for targeting timing of interventions designed to bolster racial identity in African American youth. It could be the case that youth's racial ideology and racial regard are also relatively stable across adolescence. However, because racial ideology and racial regard demand more advanced and complex perspective taking, development of these dimensions may not be as stable earlier on, only achieving stability once youth have entered late adolescence or adulthood. It is also important to note that while understanding the stability of other dimensions of racial identity across early human development (i.e. childhood and adolescence) is important, researchers should also examine how these constructs change in adulthood, as well.



Taken together, the results from the current study provide new knowledge about the development of racial centrality in African American youth from late childhood to late adolescence. Further, this study sheds new light on the understanding of when parents are influencing the development of youth's racial centrality. This study serves as a first attempt to examine the longitudinal development and stability of racial identity in African American youth through a specific dimension of the MMRI as outlined by Sellers et al. (1998). Research investigating the development and stability of other dimensions of the MMRI can aid researchers in the understanding and conceptualization of racial identity development of African American youth.

## REFERENCES

- Adams, E. A., Kurtz-Costes, B., & Hoffman, A. J. (2014). *Skin tone bias among African Americans: A developmental perspective*. Manuscript submitted for publication.
- Altschul, I., Oyserman, D., & Bybee, D. (2006). Racial-ethnic identity in mid-adolescence: Content and change as predictors of academic achievement. *Child Development, 77*(5), 1155-1169.
- Baldwin, J. A. (1984). African self-consciousness and the mental health of African-Americans. *Journal of Black Studies, 15*, 177-194.
- Byrd, C. M., & Chavous, T. M. (2009). Racial identity and academic achievement in the neighborhood context: A multilevel analysis. *Journal of Youth and Adolescence, 38*(4), 544-559.
- Carter, R. T. (1991). Racial identity attitudes and psychological functioning. *Journal of Multicultural Counseling and Development, 19*(3), 105-114.
- Chavous, T. M., Rivas-Drake, D., Smalls, C., Griffin, T., & Cogburn, C. (2008). Gender matters, too: The influences of school racial discrimination and racial identity on academic engagement outcomes among African American adolescents. *Developmental Psychology, 44*(3), 637-654.
- Cokley, K. O. (2005). Racial(ized) identity, ethnic identity, and Afrocentric values: Conceptual and methodological challenges in understanding African American identity. *Journal of Counseling Psychology, 52*(4), 517-526.
- Cross, W. E. (1991). *Shades of black: Diversity in African-American identity*. Philadelphia, PA: Temple University Press.
- Cross, W. E., Parham, T. A., & Helms, J. E. (1998). Nigrescence revisited: Theory and research. In R. L. Jones (Ed.), *African American identity development: Theory, research, and intervention* (pp. 3-71). Hampton, VA: Cobb & Henry.
- Datnow, A., & Cooper, R. (1997). Peer networks of African American students in independent schools: Affirming academic success and racial identity. *Journal of Negro Education, 56*-72.
- Demo, D. H., & Hughes, M. (1990). Socialization and racial identity among Black Americans. *Social Psychology Quarterly, 53*(4), 364-374.
- Erikson, E. H. (1968). *Identity: Youth and crisis* (No. 7). WW Norton & Company.
- Erikson, E. H. (1993). *Childhood and society*. WW Norton & Company.

- Flor, D. L., & Knapp, N. F. (2001). Transmission and transaction: predicting adolescents' internalization of parental religious values. *Journal of Family Psychology, 15*(4), 627-645.
- French, S. E., Seidman, E., Allen, L., & Aber, J. L. (2006). The development of ethnic identity during adolescence. *Developmental Psychology, 42*(1), 1-10.
- Glenn, N. D. (1980). Values, attitudes, and beliefs. In Brim, O. G., & Kagan, J. (Eds.), *Constancy and change in human development*. (pp. 596-640). Cambridge, MA: Harvard University Press.
- Hart, D., & Damon, W. (1985). Contrasts between understanding self and understanding others. In R. L. Leahy (Ed.), *The development of the self*. (pp. 151-178). Orlando, FL: Academic Press.
- Hughes, D., Rodriguez, J., Smith, E. P., Johnson, D. J., Stevenson, H. C., & Spicer, P. (2006). Parents' ethnic-racial socialization practices: a review of research and directions for future study. *Developmental Psychology, 42*(5), 747-770.
- Jennings, M. K., Stoker, L., & Bowers, J. (2009). Politics across generations: Family transmission reexamined. *The Journal of Politics, 71*(3), 782-799.
- Jodl, K. M., Michael, A., Malanchuk, O., Eccles, J. S., & Sameroff, A. (2001). Parents' roles in shaping early adolescents' occupational aspirations. *Child Development, 72*(4), 1247-1266.
- Kuczynski, L. (2003). Beyond bidirectionality: Bilateral conceptual frameworks for understanding dynamics in parent-child relations. In L. Kuczynski (Ed.), *Handbook of dynamics in parent-child relations* (pp. 1-24). Thousand Oaks, CA: Sage.
- Kuczynski, L., Marshall, S., Schell, K. (1997). Value socialization in a bidirectional context. In J. E. Crusec & L. Kuczynski (Eds.), *Parenting and children's internalization of values: A handbook of contemporary theory* (pp. 23-50). New York, NY: Wiley.
- Leonard, K. C., Cook, K. V., Boyatzis, C. J., Kimball, C. N., & Flanagan, K. S. (2013). Parent-child dynamics and emerging adult religiosity: Attachment, parental beliefs, and faith support. *Psychology of Religion and Spirituality, 5*(1), 5-14.
- Lewis, M., & Painter, L. (1974). An interactional approach to the mother-infant dyad. In M. Lewis & L. A. Rosenblum (Eds.), *The effect of the infant on its caregiver*. New York, NY: Wiley.
- Loulis, S., & Kuczynski, L. (1997). Beyond one hand clapping: Seeing bidirectionality in parent-child relations. *Journal of Social and Personal Relationships, 14*(4), 441-461.
- Maccoby, E. E. (1992). The role of parents in the socialization of children: An historical overview. *Developmental Psychology, 28*(6), 1006-1017.

- Marshall, S. (1995). Ethnic socialization of African American children: Implications for parenting, identity development, and academic achievement. *Journal of Youth and Adolescence*, 24(4), 377-396.
- Miller, D. B., & MacIntosh, R. (1999). Promoting resilience in urban African American adolescents: Racial socialization and identity as protective factors. *Social Work Research*, 23(3), 159-169.
- Miller, R. B., & Glass, J. (1989). Parent-child attitude similarity across the life course. *Journal of Marriage and the Family*, 991-997.
- Neblett, E. W., Rivas-Drake, D., & Umaña-Taylor, A. J. (2012). The promise of racial and ethnic protective factors in promoting ethnic minority youth development. *Child Development Perspectives*, 6(3), 295-303.
- Neblett, E. W., Jr., Shelton, J. N., & Sellers, R. M. (2004). The role of racial identity in managing daily hassles. In G. Philogene (Ed.), *Race and identity: The legacy of Kenneth Clark* (pp. 77–90). Washington, D.C.: American Psychological Association
- Neblett Jr, E. W., Smalls, C. P., Ford, K. R., Nguyen, H. X., & Sellers, R. M. (2009). Racial socialization and racial identity: African American parents' messages about race as precursors to identity. *Journal of Youth and Adolescence*, 38(2), 189-203.
- O'Brien Caughy, M., Nettles, S. M., O'Campo, P. J., & Fraleigh Lohrfink, K. (2006). Neighborhood matters: Racial socialization of African American children. *Child Development*, 77(5), 1220-1236.
- O'Connor, L. A., Brooks-Gunn, J., & Graber, J. (2000). Black and White girls' racial preferences in media and peer choices and the role of socialization for Black girls. *Journal of Family Psychology*, 14(3), 510-521.
- Pahl, K., & Way, N. (2006). Longitudinal trajectories of ethnic identity among urban Black and Latino adolescents. *Child Development*, 77(5), 1403-1415.
- Phinney, J. S. (1989). Stages of ethnic identity development in minority group adolescents. *Journal of Early Adolescence*, 9 (1–2), 34–49.
- Phinney, J. S. (1990). Ethnic identity in adolescents and adults: Review of research. *Psychological Bulletin*, 108(3), 499–514.
- Quintana, S. M. (1994). A model of ethnic perspective-taking ability applied to Mexican-American children and youth. *International Journal of Intercultural Relations*, 18, 419-448.

- Quintana, S. M. (2007). Racial and ethnic identity: Developmental perspectives and research. *Journal of Counseling Psychology, 54*(3), 259-270.
- Rowley, S. J., Sellers, R. M., Chavous, T. M., & Smith, M. A. (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.
- Sanders Thompson, V. L. (1994). Socialization to race and its relationship to racial identification among African Americans. *Journal of Black Psychology, 20*(2), 175-188.
- Sellers, R. M., Copeland-Linder, N., Martin, P. P., & Lewis, R. H. (2006). Racial identity matters: The relationship between racial discrimination and psychological functioning in African American adolescents. *Journal of Research on Adolescence, 16*(2), 187-216.
- Sellers, R. M., Smith, M. A., Shelton, J. N., Rowley, S. A., & Chavous, T. M. (1998). Multidimensional model of racial identity: A reconceptualization of African American racial identity. *Personality and Social Psychology Review, 2*(1), 18-39.
- Selman, R. L. (1980). *The growth of interpersonal understanding: Developmental and clinical analyses*. San Diego, CA: Academic Press.
- Umaña-Taylor, A. J., & Fine, M. A. (2004). Examining ethnic identity among Mexican-origin adolescents living in the United States. *Hispanic Journal of Behavioral Sciences, 26*(1), 36-59.
- Whitesell, N. R., Mitchell, C. M., & Spicer, P. (2009). A longitudinal study of self-esteem, cultural identity, and academic success among American Indian adolescents. *Cultural Diversity and Ethnic Minority Psychology, 15*(1), 38-50.
- Wong, C. A., Eccles, J. S., & Sameroff, A. (2003). The influence of ethnic discrimination and ethnic identification on African American adolescents' school and socioemotional adjustment. *Journal of Personality, 71*, 1197-1232.

Table 1  
*Means, Standard Deviations, Sample Size and Bivariate Correlations for Child and Parent Race Centrality*

	<i>M</i> ( <i>SD</i> )	<i>n</i>	1	2	3	4	5	6	7	8
1. Child Race Centrality T1	3.63 (0.79)	372	-							
2. Child Race Centrality T2	3.57 (0.74)	299	.31**	-						
3. Child Race Centrality T3	3.52 (0.78)	250	.27**	.45**	-					
4. Child Race Centrality T4	3.59 (0.73)	204	.27**	.18*	.57**	-				
5. Parent Race Centrality T1	3.40 (0.74)	268	.06	.02	.09	.14	-			
6. Parent Race Centrality T2	3.53 (0.67)	244	.01	.08	.19**	.11	.49**	-		
7. Parent Race Centrality T3	3.60 (0.75)	203	-.01	.05	.25**	.28**	.57**	.51**	-	
8. Parent Race Centrality T4	3.55 (0.62)	146	.18*	.10	.23**	.26**	.48**	.51**	.63**	-

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

Figure 1. Autoregressive cross-lagged model of youth and parent racial centrality from Grade 5 to Grade 12. Regression weights for unidirectional pathways are unstandardized. Bidirectional pathways are standardized and can be interpreted as correlations. Solid lines represent paths that were significant ( $p < .05$ ) and dashed lines represent paths that were not significant ( $p > .05$ ).

