Racial Discrimination and Racial Socialization as Predictors of African American Adolescents' Racial Identity Development using Latent Transition Analysis

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Abstract

The current study examined perceptions of racial discrimination and racial socialization on racial identity development among 566 African American adolescents over three years. Latent class analyses were used to estimate identity statuses (Diffuse, Foreclosed, Moratorium and Achieved). The probabilities of transitioning from one stage to another were examined with latent transition analyses to determine the likelihood of youth progressing, regressing or remaining constant. Racial socialization and perceptions of racial discrimination were examined as covariates to assess the association with changes in racial identity status. The results indicated that perceptions of racial discrimination were not linked to any changes in racial identity. Youth who reported higher levels of racial socialization were less likely to be in Diffuse or Foreclosed compared to the Achieved group.

Keywords

Racial Identity; Racial Discrimination; Racial Socialization; African Americans/Blacks; Adolescents; Longitudinal

Adolescence is the developmental period when the complexities of identity are explored for youth (Erikson, 1968). In addition to the normative identity exploration that all adolescents undergo, youth of color also navigate the complexities of an identity related to their racial/ethnic group membership (Phinney, 1989). Theoretical formulations suggest that racial discrimination and racial socialization are related to racial identity development among minority youth (Cross, 1991; Hughes et al., 2006). Yet, few studies have examined empirically whether adolescent perceptions of racial discrimination and racial socialization approaches are linked to racial identity development among African American adolescents.

The current study employs the Phenomenological Variant of Ecological Systems Theory (PVEST) model (Spencer, Fegley & Harpalani, 2003) to examine these relationships.

The PVEST model incorporates ecological systems with developmental themes in describing normative processes for minority youth (Spencer, Fegley & Harpalani, 2003). PVEST emphasizes a perspective that incorporates issues of culture, history and normative developmental processes involved in identity formation (Spencer, 2006). Identity formation is believed to be influenced by macro level factors (i.e., racism), cultural influences (i.e., media) and significant others (immediate and extended family) (Spencer, 2006). Whereas traditional identity models describe the developmental process whereby individuals solidify their identities in general (Erikson, 1968), and as they relate to specific aspects such as race/ ethnicity (Phinney, 1989), PVEST situates this developmental process in social contexts that are relevant for youth of color. Accordingly, risk factors (i.e., disadvantaged treatment based on race) may negatively impact the identity formation process, and protective factors (i.e., cultural and/or racial socialization messages) may offset the negativity of risk factors in various contexts for minority youth (Spencer, 2006). Additionally, the model suggests that the impact of this balance on identity formation is especially relevant for adolescence. Thus, it may be important to know the contribution of racial discrimination and racial socialization to racial identity development given the importance ascribed to healthy identity development for the lifespan (Erikson, 1968). In the present study, we utilize aspects of this framework to examine the influence of racial discrimination and racial socialization on racial identity development among African American youth. The PVEST model holistically conceptualizes that there are many factors that influence minority children's development and emerging identities, but the present study focuses on two: racial discrimination and racial socialization. Though the PVEST model conceptualizes racial discrimination as a risk factor for minority youth development, we propose that it may be an antecedent of identity development because exposure to racial discrimination might result in further identity exploration and resolution among African American adolescents. Accordingly, we suggest that racial socialization may also be an antecedent for identity development, resulting in identity exploration and resolution. Although PVEST allows for multiple racial socialization agents (e.g., extended family, teachers, siblings), the present study only focuses on parental socialization messages and their relation to identity development for African American youth.

Racial Identity Development

According to Erikson (1968), identity was akin to a sense of wholeness involving the exploration of one's abilities resulting in a commitment to a crystallized identity. Marcia (1966) proposed four statuses of identity development (i.e., diffuse, foreclosed, moratorium and achieved) based on the presence and/or absence of exploration and commitment. Individuals in a *diffuse* status have not committed to a particular identity nor have they begun to explore who they are. Individuals in a *foreclosed* status have committed to a particular ego identity based on the opinions of influential others without any personal exploration. Individuals in the *moratorium* status are engaged in exploring who they are but have not reached a point in which they have committed to a particular ego identity. Individuals in the *achieved* stage have committed to a particular identity after having explicitly explored what that particular identity means. Phinney (1989) applied this generic model of identity development to the study of racial/ethnic identity. From this developmental perspective, the diffuse and foreclosed statuses were conceptualized as immature starting points, moratorium was considered to be transitional, and achieved was considered to be the optimal identity resolution (Phinney, 1993). Indeed, in a study of African American adolescents, young adults and adults all four identity statuses were

observed in the different age groups (Yip, Seaton & Sellers, 2006). However, this study was cross sectional and could not address issues of racial identity development over time.

In one of the few longitudinal studies examining racial identity development among minority youth, Phinney (1989) and her colleagues (Phinney & Chavira, 1992) used structured interviews to assign Asian American, African American, and Latino 10th graders into one of the theoretical identity statuses. Coders categorized 21.3% of the interviewees as having an achieved identity, while 22.9% were categorized as moratorium. Yet, the coders placed the remaining 55.7% of the sample into a new group called unexamined identity. When participants were re-interviewed, coders classified participants into three identity status groups. A comparison of participants' identity status across the two time points found that 33% were in the same status as they were initially classified, 56% were in status groups consistent with the progression predicted by the model, and 11% were in status groups that were inconsistent with the model (Phinney & Chavira, 1992). Focusing only on African American youth, Seaton, Scottham and Sellers (2006) examined the exploration and commitment dimensions of the Multi-group Ethnic Identity Measure (MEIM) with cluster analytic techniques to empirically replicate the four identity status groups (i.e., diffuse, foreclosed, moratorium and achieved). The results suggested that 39% of adolescents were in the same racial identity status group over time (Constant), 33% progressed in a way that was consistent with the identity formation model (Progressive), and 28% developed in a way that was inconsistent with the model but consistent with existing ego identity literature (Regressive) (Seaton et al., 2006).

Complementary studies have examined the independent components of racial identity, namely affirmation and belonging, exploration and group esteem, without examining how combinations of exploration and commitment are associated with identity statuses per se. In a study of African American, Puerto Rican, Dominican and West Indian adolescents, Pahl and Way (2006) examined changes in exploration over time and found that African American youth showed less deceleration of exploration over time compared to Latino youth. French, Seidman, Allen and Aber (2006) examined exploration and group esteem among African American, Latino and European American adolescents over a three year period. The results indicated that exploration levels did not change among early adolescents, and early African American and Latino adolescents had a greater increase in group-esteem over time than European American adolescents (French et al., 2006). Additionally, there was a significant increase in group-esteem and exploration over time among middle adolescents, and African American and Latino youth increased slightly more than their European American counterparts (French et al., 2006). These studies suggest that adolescence is a developmental period in which changes in racial identity and its components seem normative across a variety of ethnic/racial groups.

Influences on Racial Identity Development

Racial discrimination is defined as dominant group members' actions that have a differential and negative effect on subordinate racial/ethnic groups (Williams, Neighbors & Jackson, 2003). Prior theoretical formulations suggest that racially discriminatory experiences subsequently influence racial identity development among minority group members. For example, the Nigresence model posits that an encounter with racism or racial discrimination may trigger the exploration of racial identity (Cross, 1991). Specifically, it was suggested that this experience may serve as a stimulus for progression from a racial unawareness to one of awareness and understanding the role that race plays in the lives of African Americans (Cross & Fhagen-Smith, 2001). Previous research examining whether perceptions of racial discrimination influence the development of racial identity is equivocal. For example, Masuoka (2006) reported that perceptions of discrimination

strengthened pan ethnic identity among nationally representative samples of Asian Americans and Latinos. Pahl and Way (2006) employed a longitudinal sample of African American and Latino adolescents and found that perceptions of discriminatory acts by peers were associated with increased exploration levels over time. Yet, increased perceptions of racial discrimination were associated with less ethnic affirmation and exploration among Mexican American youth (Romero & Roberts, 2003). Furthermore, other studies have provided evidence of the reverse relationship in that higher levels of Immersion-Emersion attitudes were related to perceptions of racial discrimination among a sample of Afro-Caribbeans (Hall & Carter, 2006). Similarly, exploration levels predicted perceptions of discrimination among a sample of African American, European American, Mexican American and Vietnamese American youth (Romero & Roberts, 1998). Despite theory that suggests that racial discrimination may be an important antecedent for racial identity development among African American youth, the empirical literature remains inconsistent.

Racial socialization is also believed to serve as an antecedent for the development of an achieved racial identity because it instills pride and group knowledge in children and adolescents (Bennett, 2006). Racial socialization consists of the mechanisms through which parents transmit information, values and perspectives about race and ethnicity to their children (Hughes et al., 2006), with ethnic identity as the most commonly investigated outcome. While we recognize that racial messages can come from other sources (i.e., teachers, church leaders, extended family members and older siblings), consistent with existing literature (Hughes et al., 2006), the present study focuses on parental racial socialization messages. As the primary socializing agents, parental messages may be more frequent and have more of an impact on longitudinal changes in racial identity among African American adolescents. Previous research has generally supported the relationship between racial socialization practices and racial identity among African American children, adolescents and adults, identifying cultural socialization and preparation for bias as key constructs. Cultural socialization refers to parental practices that teach children about their racial/ethnic heritage and history, and also promote cultural customs and traditions (Hughes et al., 2006). Cultural socialization has been associated with identity exploration and advanced stages of identity development among African American youth (Stevenson, 1995) and adults (Demo & Hughes, 1990). Preparation for bias refers to parents' efforts to promote their children's awareness of discrimination has been emphasized as a critical component of racial socialization (Hughes et al., 2006). McHale and colleagues (2006) reported that mothers' cultural socialization practices and fathers' preparation for bias techniques were associated with stronger, more mature identities among African American children. Further, African American adolescents who believed in the importance of teaching about racism were more likely to be in the more advanced stages of racial identity development (Stevenson, 1995). Among African American college students, those who did not receive racial barrier messages were more likely to have color-blind beliefs, compared to those who did receive messages concerning racial barriers (Barr & Neville, 2008). Additionally, parental and adolescent perceptions of racial socialization practices have been linked to encounter attitudes (Marshall, 1995) and achieved ethnic identities (Bennett, 2006). Thus, racial socialization has been observed to play an important role in racial identity development for African American youth, and the current study will test this association over time.

The Current Study

We build upon existing work by examining racial discrimination and racial socialization as predictors of changes in racial identity status groups over time (Phinney, 1989; Phinney & Chavira, 1992; Seaton et al., 2006). Using two waves of data, Seaton and colleagues (2006) identified three trajectories of racial identity change among African American adolescents:

Regression, Constant and Progression. We were interested in expanding the literature by assessing whether youths' perceptions of racial discrimination and racial socialization practices were linked to the likelihood of being in a specific identity status group and whether increases in racial discrimination or racial socialization are linked to specific racial identity trajectories.

The first research question concerns the association between adolescent perceptions of racial discrimination and the racial identity status groups. Since theoretical work (Cross, 1991) suggests that discriminatory treatment results in further exploration, we anticipate that increased perceptions of racial discrimination may result in a greater likelihood of youth being in the Moratorium and Achieved statuses. We also anticipate that increased perceptions of racial socialization will result in an increased likelihood of adolescents being in the Achieved status since racial socialization messages have been linked to achieved identities (Demo & Hughes, 1990).

The second question concerns the relationship between perceptions of racial discrimination, racial socialization and specific racial identity transitions. Prior theoretical work suggests that discrimination will be linked to exploration (Cross, 1991) and recent empirical research suggests that perceptions of racial discrimination were associated with increasing exploration levels over time among Black and Latino youth (Pahl & Way, 2006). Consequently, we expect that perceptions of racial discrimination may be linked to Progressing trajectories with youth advancing toward the Moratorium or Achieved statuses. Yet, theoretical work also suggests that racial recycling is possible for some African Americans when life events force them to reevaluate their racial attitudes and ideologies (Parham, 1989). As such, it is possible that perceptions of racial discrimination may be linked to Regressing trajectories, particularly for African American youth classified as Achieved who may regress to Moratorium due to recycling. Whereas prior cross-sectional research has shown that racial socialization dimensions were associated with achieved identities (McHale et al., 2006; Bennett, 2006; Stevenson, 1995), we anticipate that racial socialization messages will be linked to Progressing trajectories with youth advancing toward the Achieved status.

Methods

Participants

Data were collected from African American adolescents attending public school in a large Midwestern town as part of a three-year longitudinal study of racial identity, racial socialization and adjustment outcomes. At all three time points, data were collected from both an adolescent and his/her primary caregiver and a total of 566 adolescents across two cohorts had data for at least onetime point. Students began the study either in the 7th, 8th, 9th, or 10th grade (mean age = 13.83 years old, SD = 1.11), and were administered surveys once a year for three years. There were more females than males in the study (60%) and the median family income was reported by parents to be between $40,000–49,000. The city in which the school district is situated has a total population of 110,000 of which African American families comprise approximately 9% of the overall population. The target district contains a total of six middle and four high schools, and there was variation in the racial make-up of the schools. The percentage of African Americans in the ten schools ranged from 7.2% to 64.9%[2]. The sample size for the first time point was 566, 380 for the second time point and 260 for the third time point. Yet, the statistical technique afforded the

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[2]Given the varying racial composition of the schools, analyses of school level intra-class correlations indicated that across all indicators of racial socialization and racial discrimination, the variability across schools was non-significant at the baseline.

opportunity to utilize every student that had completed the survey at the initial time point. Analyses were conducted to assess differences between those who participated in all three time periods and those who only completed surveys at the first time point. The results indicated no differences on demographic or study variables between the two groups.

Procedure

The specific procedures for the longitudinal study have been described in empirical research describing one wave of data (Citation removed for blind review) and two waves of data (Citation removed for blind review). The current study builds upon previous research using this data source by assessing three waves of data. All adolescents identified as African American by the school district were contacted by phone or mail to participate in the study. For students with parental consent, pencil and paper surveys were administered in small groups after school by trained African American researchers. Students were compensated with gift cards to the local mall for their participation.

Measures

Racial/Ethnic Identity—The original Multigroup Ethnic Identity Measure (MEIM) was comprised of four subscales: affirmation and belonging, identity achievement, racial behaviors and other-group orientation (Phinney, 1992). The identity achievement subscale, which measured exploration and commitment, was used in the present study. The scale consists of items with responses ranging from 1 (*strongly disagree*) to 4 (*strongly agree*), such that higher scores represent strong endorsement of their respective constructs. Previous research using the MEIM reported a two-factor solution consisting of affirmation/belonging (affirmation, belonging and commitment items) and identity search (exploration and ethnic behavior items) (Phinney, 1992; Roberts et al., 1999). However, previous work has not exclusively focused on the achievement subscale, which measures exploration and commitment (Phinney, 1992).

The goal of the present study was to create the identity statuses from exploration and commitment levels, thus consistent with other work with the same goals (Yip, Seaton & Sellers, 2006); the achievement subscale was separated into exploration and commitment dimensions. A confirmatory factor analysis was conducted to discern whether the achievement subscale consisted of two oblique latent factors with exploration and commitment items at all three time periods. The results indicate the following for Time 1 (X^2 = 18.2, df = 8, X^2/df = 2.3, CFI = .98 and RMSEA = .05), Time 2 (X^2 = 28.6, df = 8, X^2/df = 3.6, CFI = .96 and RMSEA = .07) and Time 3 (X^2 = 35.9, df = 8, X^2/df = 4.5, CFI = .90 and RMSEA = .08). We assessed levels of fit using the root mean square error of approximation (RMSEA) and the comparative fit index (CFI). An RMSEA less than or equal to .08 indicates a reasonable fit (Browne & Cudeck, 1993) but an RMSEA .06 is preferable (Hu & Bentler, 1999), whereas a CFI greater than or equal to .90 is believed to reflect a good fit (Hu & Bentler, 1999). Additionally, the moderate correlations (r = .44 to .55) between exploration and commitment across the three time points suggest that these are distinct constructs (see Table 1). Consequently, the results provide an adequate fit for the data and an empirical justification for separating the achievement subscale of the MEIM into exploration and commitment indices.

This subscale consists of six items rated on a four-point Likert scale, which range from strongly disagree to strongly agree. The exploration subscale consists of four items (Time 1 α =.62; Time 2 α =.61; Time 3 α =.65), and a sample item includes, "I think a lot about what being Black means for my life." The commitment subscale has two items (Time 1 α =.70; Time 2 α =.67; Time 3 α =.71), and a sample item includes "I understand pretty well what being Black means to me." Since the Cronbach's alphas for the exploration and

commitment variables were below the .70 convention; the Spearman-Brown correction was calculated to estimate the Cronbach's alpha if the subscales contained 12 items, equivalent to the full-item MEIM (exploration: Time 1 α =.77; Time 2 α=.76; Time 3 α=.79, and commitment: Time 1 α=.82; Time 2 α=.80; Time 3 α=.83). Using this approach, estimated Cronbach's alphas were comparable to previous research using the 12-item MEIM (α=.82, Roberts et al., 1999; α=.75, McMahon & Watts, 2002; and α=.82, Bracey et al., 2004). Scores for each subscale were developed by averaging across the items, and higher scores are indicative of high levels of exploration and commitment.

Perceptions of Racial Discrimination Frequency & Bother—The frequency of and distress associated with discriminatory experiences was assessed with the 18-item daily life experiences (DLE) subscale of the Racism and Life Experiences Scale (RaLes) (Harrell, 1994; Seaton, Yip & Sellers, 2009). The RaLes was designed to assess collective, individual, and vicarious racism experiences of three types: life event/episodic stress, daily hassles and chronic/contextual stress (Harrell, 1994). The DLE is a self-report measure that assesses daily hassles or the frequency of "microaggressions" because of race in the past year. Participants were presented with a list of experiences and asked to indicate how often it occurred to them in the past year "because you were Black" (0 = never, 1 = once, 2 = a few times, 3 = about once a month, 4 = a few times a month, 5 = once a week or more). Sample items included: "Having your ideas ignored" and "Not being taken seriously" (T1: α = .92; T2: α = .92; T3: α = .91). In previous psychometric analyses, this subscale demonstrated adequate internal consistency, with assessments of construct validity indicating that daily life experiences were negatively correlated with social desirability and cultural mistrust (Harrell, 1994). Evidence of criterion-related validity was also demonstrated and revealed a positive relationship between daily life experiences and perceived stress, psychological symptoms and trauma-related symptoms (Harrell, 1994). Participants were also asked to indicate how much they were bothered by each of these discriminatory experiences (0 = has never happened, 1 = bothers me a little, 2 = bothers me somewhat, 3 = bothers me a lot, 4 = bothers me extremely) (T1: α = .92; T2: α = .93; T3: α = .92). A mean score for the discrimination frequency and bother subscales was computed for each of the three time points such that higher scores indicate more frequent exposure to and bother associated with discrimination.

Racial Socialization—Latent scores from five subscales, racial pride, racial barriers, egalitarian messages, behavioral messages and self-worth, were examined (Brown, Scottham, Sellers, & Nguyên, 2010; Neblett et al., 2006). Students were asked to rate the frequency of messages they received from parents (0 = never, 1 = once or twice, 2 = more than twice) in the past year. Racial pride includes six items and assesses positive affect associated with membership in one's racial group and was assessed with items such as "Told you that you should be proud to be Black" (Time 1 α = .65, Time 2 α = .69, Time 3 α = .78). Racial barrier messages includes four items and convey the possibility that youths will experience more hurdles to success because of their race. An example of a racial barrier message includes, "Told you that Blacks have to work twice as hard as Whites to get ahead" (Time 1 α = .68, Time 2 α = .69, Time 3 α = .74). Egalitarian messages includes four items and underscore the strengths that all racial groups have; for example, "How often have your parents told you that you can learn things from people of different races" (Time 1 α = .64, Time 2 α = .64, Time 3 α = .70). Frequency of behavioral messages includes five items and examines how often parents engage in behaviors that teach their kids about race; for example, "Bought you Black toys or games" (Time 1 α = .72, Time 2 α = .74, Time 3 α = 73). There are four self-worth messages assessing how often youths were encouraged to have pride in themselves, for example, "Told you to be proud of who you are" (Time 1 α = .76, Time 2 α = .71, Time 3 α = .75).

Data Analytic Strategy

To assess the research questions, a person-centered technique was used to examine how probabilistic classes of individuals (i.e., racial identity statuses) vary in systematic ways over time. We used latent profile analysis to estimate the presence of unobserved groups of youth based on their responses to the exploration and commitment variables. In latent profile analyses, a categorical latent variable represents profile groups based on patterns of observed responses and probabilities of class membership are provided (Heinen, 1996). Similarly, latent transition analysis is used once these classes or profile groups are established to examine changes in class membership over time. Latent transition analysis is a statistical technique used to model changes in latent class membership over time (Muthen & Muthen, 2007). Latent transition analysis is an optimal technique for examining stage development or change over time because it models change from year to year, and it affords the opportunity to examine transitions or movements among racial identity classes between the time periods (Chapman & Christ, 2008; DiStefano & Kamphaus, 2006). Covariates are incorporated to assess the degree to which they influence class membership and the degree to which individuals change from one latent class to another[3]. Racial discrimination and racial socialization were included as key predictors in the latent transition analysis model to assess their impact on change in transition membership and trajectory. Models were estimated with Mplus, Version 6 using full information maximum likelihood. Maximum likelihood estimation handles imbalance in differing numbers of observations across individuals (i.e., missing data) under the assumption that the probability of missing data may be related to the values of the data that are observed but are not dependent on data that are missing but are missing at random. We refer the reader to specific references regarding the use of maximum likelihood estimation with data sets that have significant amounts of attrition (see Enders, 2010; Graham, Olchowski, & Gilreath, 2007; Schafer & Graham, 2002).

Results

Correlations

For reference, the correlations between study variables within each of the study years 1–3 are presented in Tables 1–3, respectively.

The Measurement Model

The measurement model assesses whether similar class structures are evident at each time period or whether distinct class structures emerge at later time periods (Muthen & Muthen, 2007). The number of classes was held constant across time such that models with three, four, five and six classes were estimated to assess the approximate number of classes for subsequent analyses. The means for exploration and commitment were constrained to equality across time in the models. In order to evaluate model fit, we used the Bayesian Information Criterion (BIC), which compares solutions with different model structures for models that are not nested (Akaike, 1977; Muthen & Muthen, 2000); note that the BIC is favored over newer measures of model fit (e.g., Bootstrap Likelihood Ratio Test [BLRT]) when class membership predictors are included in the model (Nylund, Asparouhov & Muthen, 2007). Lower values of BIC indicate better fitting models, which describe how well a model discriminates groups, should be closer to 1 to illustrate better prediction (Muthen &

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[3]Initial analyses examined the impact of age on transition probabilities in two ways: a) using age as the measure of chronological time as is the case in cohort sequential designs (instead of survey wave) and b) examining age as a covariate in LTA models where survey wave was the measure of chronological time. Models would not converge on a unique solution when age was used as our measure of time in the first set of models and, when used as a covariate, age did not predict differences in static class membership nor in transitions to different classes.

Muthen, 2007). Table 4 shows the BIC values, with the four-class solution as the optimal solution. Class 1 was labeled Diffused, corresponding to a racial identity status characterized as having low scores on the exploration and commitment items (see Figure 1). Class 2 was labeled Foreclosed, and had low scores on the exploration items but higher scores on the commitment items. Class 3 was characterized as having high scores on the exploration items and moderate scores on the commitment items, and was consistent with a Moratorium identity status. Class 4 demonstrated high scores on the exploration and commitment items, and was characterized as Achieved. The Foreclosed class was the largest class consistently across all three waves of data (Table 5).

Developmental Transitions

The subjects are classified into a latent identity class based on estimated posterior probabilities, or a student's most likely class membership. Probability values are estimated for the individual as well as averaged across an entire class across time. The values above the bold diagonal numbers are indicative of forward movement or Progression, and the values below the bold diagonal numbers are suggestive of backward movement or Regression across both time periods. While some of the transition probabilities may appear significant due to their magnitude, they may not take into account the uncertainty in class membership in ways that latent class models are designed to do (see Table 6).

"Stayer" Patterns—Two significant findings were evident among youth who remained in the same class across time and comparisons were made for every racial identity status. Youth who were in the Diffused class at Time t were significantly more likely to have stayed in the Diffused class at Time t+1 (30% from Time 1-Time 2, 35% from Time 2-Time 3) than move to the Achieved class, b = 1.19 (.32), t = 3.71, p<.001. Likewise, youth who were in the Foreclosed class at Time t were significantly more likely to have stayed in the Foreclosed class at Time t+1 (50% from Time 1-Time 2, 49% from Time 2-Time 3) than move to the Achieved class, b = .82 (.24), t = 3.43, p<.001.

"Mover" Patterns—There was also a significant pattern evident among youth who changed racial identity status over time. Specifically, youth who were in the Diffused class at Time t were significantly more likely to move to the Foreclosed class at Time t + 1 (than move to the Achieved class), b = .85 (.35), t = 2.44, p=.02.

Racial Discrimination and Racial Socialization with Racial Identity Status Groups

The time-specific associations of the covariates (i.e., racial discrimination and racial socialization) were examined as predictive of being in a specific racial identity status and predictive of specific racial identity trajectories. Continuous latent variables were estimated for the racial discrimination (i.e., frequency and bothered) and racial socialization (i.e., racial pride, racial barriers, egalitarian messages, behavioral messages and self-worth) dimensions. Time was constrained such that the comparisons are equivalent across Time 1 to Time 2 and Time 2 to Time 3. For example, racial socialization at Time 1 was used to predict the transitions from Time 1 to Time 2, and racial socialization at Time 2 was used to predict the transitions from Time 2 to Time 3. In order to examine transition differences, the Achieved group was the reference group since it is the proposed end state for identity development (see Phinney, 1989). Three comparisons were made: 1) the likelihood of being in the Diffused compared to the Achieved group, 2) the likelihood of being in the Foreclosed compared to the Achieved group and 3) the likelihood of being in the Moratorium compared to the Achieved group.

Racial Discrimination—Racial discrimination was neither predictive of being in a specific racial identity status nor was it predictive of a specific racial identity trajectory over time.

Racial Socialization—In terms of prediction of identity status membership, higher levels of racial socialization, which was comprised of the latent scores for all 5 subscales, predicted a significantly lower probability of being in the Foreclosed class (compared to the Achieved class) at a specific point in time, $b = -2.21$ (.98), $t = -2.26$, p=.02. In terms of predicting racial identity trajectories, youth who perceived high levels of racial socialization and were in the Diffuse class at time t were less likely to remain in the Diffuse class (and more likely to be in the Achieved class) by Time t + 1 (transition from Time 1-Time 2 and from Time 2-Time 3), $b = -24.44$ (9.21), $t = -2.65$, p=.01.

Discussion

Using specific aspects of the theoretical framework outlined by the PVEST model, this study examined how perceptions of racial discrimination and racial socialization were associated with changes in adolescents' racial identity status. Specifically, we examined experiences of discrimination and reports of parental racial socialization as antecedents of racial identity development. To operationalize racial identity status, these data contribute to the growing empirical research that finds support for the existence of the four identity statuses (Seaton et al., 2006; Yip et al., 2006) as outlined theoretically by Erikson (1968), Marcia (1966) and Phinney (1989).

Developmental Transitions

We examined movement between the identity statuses over a three-year period. Consistent with existing research examining youths' change in identity status, this study observed both movement and stability over time (Seaton et al., 2006). That is, this study contributes to the literature by demonstrating the diversity of ways in which African American youths experience their racial identity over time. Interestingly, nearly a third of the sample reported stability in their racial identity status over the course of the study. Of the youths who reported stability, the majority reporting remaining in the foreclosed status. Recall that the foreclosed status is characterized by low levels of exploration and high levels of commitment. Since the current sample represents African American youth living in a predominantly White area, it seems possible that youths in this profile reflect racial identity development Pattern A as outlined by Cross and Fhagen-Smith (2001) in their Nigrescence model. Specifically, individuals who come to develop a sense of racial identity through formal socialization processes (e.g., parental socialization) are considered to be "normative" (pg. 243) and thus describe the majority of Black individuals in the United States. That is, these youths may come from families where the discourse around race has been consistent, thereby precluding the need for youths to embark on their own search for the meaning of their race before committing (a hypothesis that was examined in these data). It is also possible that these youths underwent changes in identity status prior to when these data were collected. Consistent with the latter point, we find evidence of the second largest stable group to be youths in the achieved profile. Reporting both high levels of exploration and commitment, it seems that at the time the data were collected, these youths had already undergone a process of discovery and affirmation of their racial identity. Despite identity theories positing that identity development begins in adolescence (Erikson, 1968; Marcia, 1980), this finding is consistent with previous research which has observed that many youths do report having an achieved identity in adolescence (Yip et al., 2006). Therefore it seems possible that while having an achieved identity may not be the modal category for

adolescents, there is a sizable percentage of these youths that deserve recognition in the theories about identity development.

The majority of youths (69% of those who reported movement), however, did appear to change in identity status over the course of the study. Of these youths, the majority reported a combination of regression and progression trajectories. For example, these youths may have reported a progressive movement from Time 1 to Time 2, but a regressive change from Time 2 to Time 3. These patterns support conceptualizations of adolescence as a time of identity discovery and exploration (Erikson, 1968) and demonstrate that even among a sample of African American youths living in the same town, identity development can occur along a multitude of pathways. This finding is also consistent with theories that suggest that there are many ways in which youths can arrive at a healthy sense of racial identity (Cross, 1991; Cross & Fhagen-Smith, 2001). In addition, such patterns have also been observed in the ego identity development literature (Stephen, Fraser, & Marcia, 1992). The next largest group of youths who reported change in their identity status over time was ones who reported regressive change. Parham's (1989) notion of recycling provides for this possibility by allowing an individual to move from a more "advanced" stage of identity development to a "less advanced" stage. Again, there is precedence for this in the research literature on ego identity development (Stephen et al., 1992). In addition, there may be some support in the existing research on racial identity. For example, although theoretically, adults were thought to have established their racial identities, there is evidence to suggest that even adults report having identities other than "Achieved" (Yip et al., 2006). Finally, a few of the youths reported changes in racial identity status that were consistent with progression. According to identity status models, one might expect this group to be the largest and most consistent with how developmental psychologists have discussed identity development. The mean age of the current sample was about 13 years old during the first year of the study and about 16 years old at the end of the study; therefore, there are still many opportunities for youths to develop an achieved sense of identity. For example, research finds that college may be an especially important time for racial identity development as young adults have increasing opportunities to interact with same- and different race peers (Aires et al., 1998; Eithier & Deaux, 2001). As well, we know from previous research in this area that not all adults will report an achieved identity, so it is possible that theoretical models of identity development may overestimate the possibility of progressive identity trajectories during adolescence (Yip et al., 2006).

Racial Discrimination and Racial Socialization as Predictors of Change

To help elucidate why some adolescents are reporting fluctuating identities while others are reporting stable identities over a three-year period, we turn to the PVEST model and previous research which suggest that experiences of discrimination may be related to racial identity development (Spencer, 2005; 2006). Interestingly, however, the current data do not provide empirical support for this hypothesis. Not only did experiences of racial discrimination not relate to what identity status adolescents reported, it also did not appear to be related to whether or not, or what patterns of identity changed adolescents reported. In particular, it was expected that discrimination may serve as encounters that would trigger changes in identity status (Cross, 1991). Pahl and Way (2006) found that experiences of discrimination were associated with increased racial identity exploration over time among Black and Latino youth, and perceptions of discrimination were linked to exploration and affirmation levels among Mexican American youth (Romero & Roberts, 2003). One possible explanation for the discrepancy is that we utilized a person-centered approach with latent transition analyses rather than examining the variables of exploration, commitment and affirmation independently; therefore, the effects of discrimination on exploration cannot be examined independent of commitment in this paper. Therefore, it seems possible that

patterns consistent with previous research would be present in the current sample if exploration and commitment were examined separately. At the same time, however, this paper represents a unique contribution to the literature by examining the effects of commitment and exploration in tandem. The correlations seems to suggest that experiences of discrimination may be more related to exploration than commitment separately, which is consistent with identity development theory positing that discrimination may serve as encounters that then begin an identity search process (Cross, 1991). It is also worth noting that these analyses used discrimination at a previous time point to predict change in identity status at a subsequent time point (e.g., Time 1 discrimination to predict change in identity status from Time 1 to Time 2), therefore, it may also be the case that the timeframe in which discrimination affects identity occurs at a different rate than that tested with these data. Another explanation may be that other types of racial discrimination may be linked to changes in racial identity development. In the current study, daily hassles were examined in relation to racial identity development but other types of racial stressors include major life events and chronic stressors (Harrell, 2000). A significant life event such as repeating a grade or being charged with a juvenile crime might be more likely to influence racial identity development among African American youth. Thus, daily incidents involving race may be less likely to influence racial identity over time, but significant life events might. Given that there are major life events scales in the adult discrimination literature (see Harrell, 1994; Williams, Yu, Jackson & Anderson, 1997) but no corollaries in the adolescent discrimination literature implies that this is an area for future research.

Consistent with predictions of the PVEST model, we also examined the protective functions of parental racial socialization messages as possible predictors of adolescents' identity status as well as the probability of adolescents moving between identity statuses. The data suggested that adolescents who reported racial socialization messages were more likely to report being in the Achieved status as compared to Diffused or Moratorium. This finding is consistent with the existing literature that finds a link between parental socialization practices and youth identity outcomes (Hughes et al., 2006). In fact, one may argue that one of the goals of racial socialization is for youths to develop a healthy and functioning sense of racial self. Therefore, it seems natural that an increase in socialization messages over time are related to youths reporting being in more well-developed identity status. Interestingly, one of the on-going conversations in the socialization literature concerns the possible bidirectional nature of socialization and identity. Recall that, as with the discrimination analyses, socialization at an earlier time point was used to predict change in identity status at a subsequent time point (e.g., Time 1 socialization to predict change in identity status from Time 1 to Time 2). These data contribute to that conversation by finding that racial socialization at an earlier time point predicts subsequent changes in identity. Although it is still very possible that youth's identity triggers parental socialization messages, this study did not examine these bidirectional relations. Further, because the current study considers racial socialization to be a latent construct as indicated by five different subscales it is not possible to differentiate which of the subscales are associated with change in identity status.

Limitations

There are limitations in the present study that require consideration. Because data were collected once a year, it is unclear at what rate the changes in racial discrimination and racial socialization are related to changes in identity statuses. That the data observed changes in identity status at one- and two-year intervals is consistent with developmental theories that suggest adolescence to be a particularly important time for identity exploration and construction (Erikson, 1968). It is not clear however, whether data collected at three-month or six-month intervals would suggest change or stability. Moreover, our prediction models used previous time points to predict later time points. Therefore, if data were collected in

smaller time intervals, it might give us more information about how antecedents (e.g., racial discrimination and racial socialization) are related to subsequent changes in identity status. Another possible limitation of the study is that reports of parental socialization are based on youths' perceptions of racial socialization practices or what youths think their parents are saying; therefore, it may not reflect parents' actual practices. However, one may argue that youths' perceptions should be a stronger predictor of youth identity than parental reports of socialization. In addition, the analysis of racial socialization as a latent construct precluded examining the independent effects of the subscales on identity status and change in identity status over time. The last limitation is the utilization of a convenience sample, which prevents generalizations from being made to other African American adolescents in urban, suburban or rural areas.

Conclusion

Nevertheless, the current study represents an important and unique contribution to the identity development literature by examining racial discrimination and racial socialization as possible antecedents to changes in identity statuses over time. While theorists have discussed identity construction processes as dynamic and fluid, there are few longitudinal studies that are able to test these notions empirically. The findings that racial socialization messages are linked to changes in racial identity development are important for understanding African American parents' socialization practices in general. Therefore, as this area of research moves forward, it is important to continue to address these questions.

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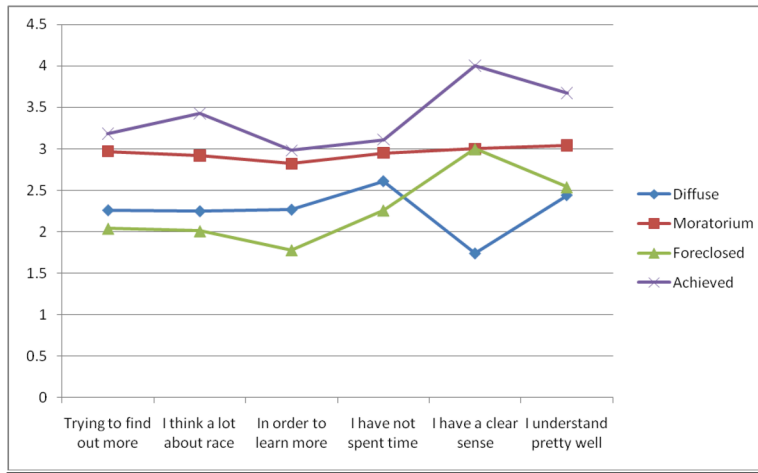
Figure 1.
The Four Latent Classes based on Scores for the Exploration and Commitment Items

Table 1

Zero-order Correlations of the Study Variables at Time 1

Predictors	Mean	SD	E	C	DF	DB	RP	RB	EM	BM	SW
E	2.87	.62	—	.53**	.14*	.15*	.37**	.25**	.31**	.43**	.26**
C	3.06	.63		—	.00	.01	.22**	.15*	.20**	.26**	.12
DF	1.70	1.11			—	.96**	.16*	.22**	.13	.20**	.08
DB	1.81	1.12				—	.19**	.25**	.14*	.21**	.12
RP	1.47	.49					—	.52**	.52**	.63**	.47**
RB	1.22	.56						—	.38**	.39**	.33**
EM	1.39	.51							—	.37**	.58**
BM	1.21	.53								—	.29**
SW	1.74	.41									—

Note. E = Exploration; C = Commitment; DF = Discrimination Frequency; DB = Discrimination Bothered; RP = Racial Pride; RB = Racial Barriers; EM = Egalitarian Messages; BM = Behavioral Messages; SW = Self-worth

*
p< .05,

**
p< .01

Table 2

Zero-order Correlations of the Study Variables at Time 2

Predictors	Mean	SD	E	C	DF	DB	RP	RB	EM	BM	SW
E	2.82	.57	—	.54**	.04	.10	.53**	.29**	.33**	.41**	.23**
C	2.97	.64		—	−.01	.00	.37**	.26**	.22**	.19**	.16*
DF	1.52	.97			—	.81**	−.03	.18**	.06	.05	−.07
DB	1.98	1.27				—	.09	.23**	.03	.17*	−.03
RP	1.43	.53					—	.54**	.53**	.69**	.46**
RB	1.29	.58						—	.37**	.44**	.38**
EM	1.26	.56							—	.42**	.57**
BM	1.12	.57								—	.32**
SW	1.67	.46									—

Note. E = Exploration; C = Commitment; DF = Discrimination Frequency; DB = Discrimination Bothered; RP = Racial Pride; RB = Racial Barriers; EM = Egalitarian Messages; BM = Behavioral Messages; SW = Self-worth

*
p< .05,

**
p< .01

Table 3

Zero-order Correlations of the Study Variables at Time 3

Predictors	Mean	SD	E	C	DF	DB	RP	RB	EM	BM	SW
E	2.82	.64	—	.44**	.26**	.34**	.33**	.30**	.24**	.32**	.21**
C	2.98	.64		—	.02	.03	.14*	.21**	.14*	.11	.05
DF	1.59	.96			—	.79**	.07	.21**	.12	.11	-.06
DB	2.02	1.23				—	.19**	.26**	.14*	.20**	.07
RP	1.47	.50					—	.46**	.47**	.68**	.55**
RB	1.34	.60						—	.34**	.35**	.37**
EM	1.20	.56							—	.38**	.50**
BM	1.23	.55								—	.39**
SW	1.66	.47									—

Note. E = Exploration; C = Commitment; DF = Discrimination Frequency; DB = Discrimination Bothered; RP = Racial Pride; RB = Racial Barriers; EM = Egalitarian Messages; BM = Behavioral Messages; SW = Self-worth

*
p< .05,

**
p< .01

Table 4

Comparison of the Latent Transition Analysis Models

# of Classes	BIC
3 Class Model	17633
4 Class Model	17389
5 Class Model	17677

Note. BIC = Bayesian Information Criterion. Lower values of BIC indicate better fitting models, which describe how well a model discriminates groups, should be closer to 1 to illustrate better prediction (Muthen & Muthen, 2007).

Table 5

Percentage of adolescents in the identity status groups across time

Class	Time 1	Time 2	Time 3
Foreclosed	39.9%	39.3%	39.2%
Diffused	20.0%	20.1%	23.5%
Moratorium	5.0%	10.0%	7.6%
Achieved	34.9%	30.3%	29.6%

Table 6

Probability transitions based on identity status classifications across time

Time 1	Time 2			
	Diffused	Foreclosed	Moratorium	Achieved
Diffused	**.30**	.34	.18	.17
Foreclosed	.13	**.50**	.09	.26
Moratorium	.29	.06	**.08**	.55
Achieved	.21	.33	.06	**.39**

Time 2	Time 3			
	Diffused	Foreclosed	Moratorium	Achieved
Diffused	**.35**	.33	.14	.17
Foreclosed	.16	**.49**	.08	.26
Moratorium	.25	.36	**.00**	.41
Achieved	.24	.31	.04	**.39**