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Factors Associated with Implicit and Explicit Preferences of African Americans

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Abstract

Factors Associated with Implicit and Explicit Racial Preference in African Americans

Research has found that approximately half of African Americans show positive implicit in-group (black) preferences and the other half show positive out-group (white) preferences. This study attempts to clarify the factors that are associated with lower in-group positivity among this population than has been documented in European Americans. Explicit and implicit preferences and identity were examined among African American children and young adults. Several potential contributing factors were examined: how strongly individuals identify with their racial group, the impact of racial socialization (parental racial attitudes/behaviors), race composition of school, and socio-economic status. The sample included 216 participants between ages 5-23 (M=15.37, SD =5.73). The sample was separated into two groups, the younger cohort (M=9.09, SD=3.05) and the college student cohort (M=19.85, SD= 1.12). Out of all participants in the younger cohort, 53% attended homogeneous/predominantly black schools. In the college student cohort 42% of the participants attended a racially homogeneous/predominantly black college. The remainder of the college participants attended a racially heterogeneous school. Results showed a lack of an implicit in-group/black preference in the younger cohort confirming our hypothesis and consistent with previous research (Baron & Banaji, 2009; Newheiser & Olson, 2012). This study contradicts previous findings of a lack of an implicit in-group bias in an older sample of African Americans (Nosek, Banaji, & Greenwald, 2002; Livingston, 2002; Ashburn-Nardo, Knowles, & Monteith, 2003; Richeson, Trawalter, & Shelton, 2005), as we provide evidence of an implicit preference in favor of their in-group in the college sample. In terms of implicit identity, both children and adults more readily associated black faces with words about the self than white faces. In general, the African Americans in this study held an explicit, pro-black preference and identity that showed positive associations with age. This study provided evidence of correlations between explicit and implicit measures; it also suggested that above and beyond the racial composition of schools, African Americans' racial preferences and identity can be predicted by the specific types of racial socialization messages they have received about racism and about the social status of their in-group.

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Introduction to Study

Over the last decade, there has been an increase in research examining the implicit racial preferences of African Americans. These studies have revealed that African Americans do not have implicit in-group biases as evidenced by research showing 50% of them more readily associate positive characteristics with their racial in-group more readily than their racial out-group (Livingston, 2002; Nosek, Greenwald & Banaji, 2002; Baron & Banaji, 2009; Richeson, Trawalter, & Shelton, 2005; Nosek, Smyth. Hansen, Devos, Linder, Ranganath, Smyth, Olson, Chugh, Greenwald & Banaji, 2007; Shutts, et al., 2011; Newheiser & Olson, 2012). This is particularly true when the comparison group is white and of higher status. The current study defines group status as determined by the prevailing social, economic, and political hierarchy (e.g., in North America, white would be viewed as higher status than black).

It remains unclear, however, when and how implicit racial preferences emerge and evolve across development, particularly in socially stigmatized racial groups such as African Americans. Implicit intergroup biases have been extensively documented among adults; their developmental roots are less understood. The current study is cross-sectional and investigated the relationship between age and African Americans' racial preferences from age 5 to early adulthood. We wanted to observe at what age African Americans become sensitive (implicitly and explicitly) to the cultural standing of their group. Such examinations are not possible with higher status groups such as European Americans, since both a natural desire to positively evaluate the in-group (e.g. Dunham, Baron, & Carey, 2011) and the internalization of positive cultural messages about the social status of their own group both lead to positive evaluations of the in-group. It is important to study socially stigmatized groups such as African Americans who do not have positive cultural messages associated with their group. We focused primarily on

implicit racial preferences, since few studies to date have examined implicit intergroup biases in this population; however, explicit preferences were also examined for comparison purposes.

American society has a long history of a gap in wealth and education between European Americans and African Americans, with European Americans enjoying higher cultural and economic status. This gap has its roots in the country's history of slavery and Jim Crow segregation, both of which paved the way for African Americans' current position at the lower end of the socio-economic status spectrum in America (Acemoglu & Robinson, 2008; Engerman & Sokoloff, 2005). As of April, 2013 the *New York Times* reported that this wealth and education gap between African American and European American families is not shrinking; indeed it has instead grown over the last half decade (Kochhar, Fry, & Taylor, 2011; Lowery, 2013). Given this history and the effects that it may have on African American individuals' self-perceptions and intergroup preferences, the current study focused exclusively on the preferences that African Americans have about their own group (intragroup preferences). African Americans are a particularly interesting group to study because they grow up in a society in which their group is devalued, which may lead an individual to internalize or justify the belief that members of their group are inferior to members of the white out-group.

The present research was conducted in Atlanta, Georgia, a city that has a large African American middle-class populations in the United States (Bullard, 2007). Paradoxically, Atlanta also has a large number of African Americans living in impoverished conditions. In 2008, the US Census Bureau reported that 20.8% of African American individuals in Atlanta lived below the poverty line (Bullard, Johnson, & Torres, 2010). Unlike many predominantly black communities in America, Atlanta has a huge economic divide with a significant portion of African Americans below poverty and many who are well above it. This economic stratification

affords an opportunity to see if the variability in African Americans' racial preferences can potentially be explained by exposure to different levels of social status with-in the African American community.

Racial preferences among African American individuals constitute a particularly interesting topic to study because there is evidence that when implicit measures of racial preferences are used and the comparison out-group is white, roughly half of the population holds positive in-group/black implicit preferences, and the other half holds positive out-group/white implicit preferences (Nosek, Banaji, & Greenwald, 2002; Livingston, 2002; Baron & Banaji, 2009). There is also evidence that this variability in implicit racial preferences can be observed in African American children (Baron & Banaji, 2009; Newheiser & Olson, 2012).

The within-group variance observed in both young and older African Americans led us to examine whether implicit preferences are associated with factors such as the racial composition of schools they attend and the types of messages they have received about race from their parents. In sum, a careful examination of the development of intergroup cognition among African Americans would help clarify the role that the cultural environment plays in the formation of positive in-group preferences. Such clarification is important because the negative representations African Americans have about their race have serious consequences with regard to their life outcomes. The formation of a positive racial identity has been shown to relate to self-esteem (Carter, 1991) and achievement (Ward, 1990; Steele, Spencer, & Lynch, 1990). In contrast, negative racial identity has been linked to psychological adjustment problems, academic problems, teen pregnancy, and involvement in crime and drug use (Cross, 1991; Poussaint, 1990).

History of Studying Racial Preferences Using Explicit Measures

Most research on intergroup racial preferences has used explicit measures, which provide direct assessments of participants' consciously accessible racial biases. A review of the literature revealed that the most commonly used methods used over the long history of studying intergroup biases are adjective checklists and rating scales (Katz & Braly, 1933; Smith, Ferree, & Miller, 1975; Nisbett & Wilson, 1977; McConahay, 1986; Judd & Park, 1988; 1993). Nisbett and Wilson (1977) questioned the cognitive processes that underlie our preferences, their consequential behaviors and how appropriate it is for social psychologists to ask their participants to self-report their biases. In their paper, Nisbett and Wilson were among the first to suggest that we do not have access to all higher order cognitions involved in the formation of our preferences and behaviors. They based this claim on data that showed that people have little awareness of their memory or perception processes. For this reason, they argued that psychological barriers exist that can prevent people from being able to accurately self-report their preferences and beliefs or to explain their behaviors.

Explicit measures' predictive power can mainly be observed for behaviors that are easily controlled such as verbal and written responses (Dovidio, Kawakami, & Gaertner, 2002; Greenwald, Poehlmam, Uhlmann, & Banaji, 2009). Whereas such assessments can provide reliable insight into an individuals' preferences, cognitive and social psychologists continue to criticize these measures as potentially subject to biased responding due to fear of negative evaluation and demand characteristics that may lead respondents to mask their racial preferences (Greenwald, et al., 2009). Such biases may lead to self-report egalitarian racial attitudes while simultaneously holding negative implicit out-group preferences (Banaji & Greenwald, 1994; Greenwald & Banaji, 1995). While people may overtly express disdain for systems of inequality

in order to not be perceived as prejudice, their behaviors and unconscious racial preferences may be in congruence with the unjust socio-cultural systems in which they live.

Devine (1989) examined how the motivation to "look good" influenced adult participants' responses regarding their explicit racial preferences measured by the Modern Racism Scale (McConahay, Hardee, & Batts, 1981). Devine showed that low prejudice individuals were more likely to list personal thoughts about African Americans that reflected equality-related and counter-stereotypical beliefs than were high prejudice individuals. This difference between groups was only observed when participants completed explicit measures of racial preferences. In contrast, when less obtrusive/implicit measures were used there were no differences in stereotype activation between low and high prejudice groups. People who are more motivated to appear unbiased demonstrate a greater discrepancy between their implicit and explicit race preferences. Explicit measures of intergroup preferences permits a person to monitor their responses and this is particularly problematic when measuring racial preferences or any other sensitive topics. Monitoring responses allows participants to control the information that they provide to others about themselves, which has the potential of eliciting socially desirable responses. Therefore, it is important to use measures that do not yield different information for individuals who vary according to their motivation to give socially desirable responses.

Implicit Measures of Racial Preferences

We can see an early interest in implicit intergroup cognition in studies dating back to the 1950's. Rankin and Campbell (1955), for instance, found that even though white Americans explicitly reported feeling equally positive towards black and white experimenters, they experienced more autonomic arousal when a black experimenter checked their pulse than when a

white experimenter checked their pulse . Later research revealed that people more quickly associated African Americans with negative characteristics than they did European Americans (Gaertner & McLaughlin, 1983). It has been suggested that during the Civil Rights Movement in the 1950's and 1960's, people began to conceal their negative biases toward African Americans instead of making them explicit as had been common practice in prior decades (Campbell, 1955; Crosby, et al., 1980).

Studies have also yielded evidence that implicit measures are more predictive of interracial behaviors than explicit measures (Greenwald, Poehlmam, Uhlmann, & Banaji, 2009). For example, assessments of European Americans' implicit racial preferences have been found to predict various behaviors, including how long they will speak to African Americans and how closely to African Americans they choose to sit (McConnell & Leibold, 2001). In one such study, Fazio, Jackson, Dunton, and Williams (1995) examined how European Americans' racial biases related to their interracial behavior. They found that participants' explicit racial preferences and beliefs did not relate to their interest in interacting with an African American experimenter after participation in the study. In contrast, their implicit racial preferences were predictive of how comfortable the participants were in an interracial interaction that occurred after participants completed the experiment. Less research has been conducted on the predictive validity of implicit preferences for African Americans, but there is evidence that their degree of implicit in-group bias is predictive of how likely they are to choose an in-group/black vs. an out-group/white person as a team member on an intellectual task (Ashburn-Nardo, Knowles, & Monteith, 2003). The current study will not be looking at the predictive validity of African Americans' implicit biases, but will lay the groundwork for such research by examining what factors are associated with the formation of such preferences.

Implicit measures are better capable of assessing unconscious biases that are not easy to self-report, such as prejudices that violate current social norms, compared with explicit measures (Baccus, Baldwin, & Packer, 2004; Banaji, 2001; Greenwald & Banaji, 1995). In particular, implicit (involuntary) measures comprising sequential priming or response time tasks better capture preferences about sensitive, socially-charged topics such as race than do measures that allow participants to monitor their responses (Greenwald, Uhlmann, Poehlman, & Banaji, 2009; Nosek, Greenwald, & Banaji, 2005; Greenwald, McGhee, Schwartz, & Jordan, 1998; Greenwald & Banaji, 1995). The Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998; Greenwald & Banaji, 1995), one example of an implicit task, has become one of the most widely used measures in research on implicit intergroup preferences. Developed based on the idea that people respond faster when sorting stimuli from two categories if the categories are implicitly/unconsciously connected in the brain, the IAT provides an index of the strength of association between paired concepts (i.e. black + bad, or white + good). During each trial of this computer-based task, individuals sort images into categories (e.g., black/white, good/bad). For half the trials participants are instructed to press one response key (e.g., "E" key) every time they see a picture of a white person or when they see a good word flash in the middle of the screen. Participants are instructed to press a second key (e.g., "I" key) each time a black face or a bad word flashes in the middle the screen. For the other half of trials, participants use the same key (E) to categorize black faces and good words and the second key (I) to categorize white faces and bad words. During each trial only one stimulus is presented (e.g., a face or a word). Individuals tend to respond more quickly and accurately when responding to pairings that they perceive as congruent (e.g., someone with a positive bias for black faces will respond more quickly when black is paired with "good"); errors and a slowed pace are more likely when pairs

are perceived as incongruent. Implicit bias scores can be generated based on individuals' reaction times and accuracy on trials of each type (congruent, incongruent).

Although the IAT is widely accepted as a measure of implicit associations, there is some debate concerning what it measures. For example, Olson and Fazio (2004) created a personalized IAT using pictures of familiar faces and found stronger correlations between self-report measures and the personalized IAT than with the original IAT. Using this evidence, Olson and Fazio criticized the IAT suggesting that results can be better explained by individual differences in the cultural knowledge about the social status of groups rather than racial biases. Addressing these criticisms, Nosek and Hansen (2008) empirically examined the extent to which scores on the IAT can be attributed solely to the awareness of cultural knowledge about the social status of groups. They observed the relationship among IAT scores, explicit/self-report attitudes about how *warm* participants felt toward black versus white people, and their cultural knowledge about the historical favorability of black vs. white Americans. They found that across multiple topics, implicit biases were weakly related to cultural knowledge. Further, when explicit preferences were taken into consideration the IAT-knowledge relationship was no longer significant. They used this evidence to suggest that cultural knowledge is most likely not a contaminant of the IAT.

Brendl, Markman and Messner (2001) suggested that familiarity explains the IAT effect, and that people receive scores that would suggest they have anti-black preferences or are prejudiced because they are not familiar with many black people, not because they are harboring negative biases about black people. According to their research, many European Americans who take the test have a harder time associating black names with positive words than they do white names with positive words because they are low in familiarity with black people. Dasgupta and

colleagues (Dasgupta, McGhee, Greenwald, & Banaji, 2000; Dasgupta, Greenwald, & Banaji, 2003) addressed the issue of familiarity by using an IAT that used pictures of familiar or unfamiliar black and white faces. Their results revealed that even when familiarity is systematically varied, it does not explain implicit biases.

The current study has potential to yield further data regarding whether familiarity is a critical variable, as the sample comprises African American participants who are presumably highly familiar with other African Americans. If familiarity were responsible for performance on implicit cognition measures of racial preferences, then we would expect African Americans, particularly those who inhabit racially homogeneous environments, to exhibit pro-black implicit biases. The current study's inclusion of African Americans who live in social environments comprising of mainly in-group/black members, as well as those who live in more heterogeneous environments, will facilitate examination of the effects of familiarity on bias task performance. Studies examining the role of familiarity, or how much experience with and or knowledge about individuals from various groups, have mainly been concerned with how familiar people are with out-group members. The present study particularly focused on the impact of how much experience with and knowledge an individual has about members of their own group on implicit racial preferences.

Evidence of an In-group Bias

The majority of the literature on intergroup biases supports the claim that categorization of the self into a group leads to a positive bias towards in-group members. This positive bias has been found to be consistent in studies examining identification with groups based on race, age, gender and nationality (Aboud, 1988; Mullen, Brown, & Smith, 1992; Hewstone, Rubin, & Willis, 2002; Barrett, 2007). It can also be seen in minimal group paradigms, in which

participants are randomly assigned to novel groups (Bigler, Jones, & Lobliner, 1997; Lane, Mitchell, & Banaji, 2005; Dunham, Baron, & Carey 2011). Tajfel (1970) and Sherif (1967), who were among the first to use the minimal group paradigm, assigned participants to arbitrary, apparently meaningless groups (e.g., "Group A" and "Group B"). They found that very minimal conditions are necessary for intergroup discrimination and in-group preference. Even groups that are arbitrary can lead individuals to form positive preferences for their in-group. In other words, positivity toward the in-group appears to be an automatic consequence of identifying oneself as a member of that group (e.g., if I'm part of a group, I will like that group).

Social Identity Theory (SIT, Tajfel & Turner, 1979; 1986) suggests that in-group bias results from motivation to enhance the self-image. A meta-analysis of studies that measured associations between in-group bias and self-esteem found that having a positive bias towards the in-group allows people to maintain high self-esteem (Aberson, Healy and Romero, 2000). Social Identity Theory posits that once a person identifies with a group, that individual then develops positive attitudes toward that group that lead to congruence between preference and identity. Similar to SIT, Balanced Identity Theory (Greenwald, et al., 2002; Cvencek, Greenwald, & Meltzoff, 2012) assumes connections among an individual's self-esteem, group membership and identity. One of the differences between these two theories is that empirical evidence has been provided for Social Identity Theory using primarily explicit measures, while research examining Balanced Identity Theory has utilized implicit measures of in-group identity and preferences. Another difference is that while Social Identity Theory associates self-esteem with the relationship between identity and preference, Balanced Identity Theory associates self-esteem more specifically with the relationship between in-group identity and biases that have a positive in-group valence (e.g., associating positive characteristics with the in-group more readily than

with the out-group). While Social Identity Theory identifies the motivation for an in-group preference, Balanced Identity Theory does not take motivation into account. The primary commonality between these theories is the idea that group membership plays an important role in individuals' patterns of thought about their group, and consequently, an individuals' self-esteem and thoughts about themselves. Studying African Americans, a group that has historically received negative evaluations in American society and who must find a way to balance positive attitudes about the self with these negative representations, may yield particularly useful data regarding this important issue in the literature on intergroup processes.

There is evidence particularly for the balance between self-esteem and ethnic identity. Phinney (1989) defined ethnic identity as sense of commitment to belonging to a group, positive evaluation of the group, desire to gain knowledge about the group, and the participation in social activities with the group. This definition is particularly relevant to the present study because it focuses on ethnic identity as the achievement, specifically, of a *positive* affiliation with the group. Such a positive affiliation may prove difficult for members of ethnic minority groups who normally have lower status and power in mainstream society and who commonly have a long history of exposure to racism. Phinney's Ethnic Identity Development Theory (Phinney, 1989; 1992) describes the process racial/ethnic minority members go through to form a positive and secure sense of self as a member of a negatively stereotyped group. Phinney, Cantu and Kurtz (1997) provided some support for the argument that a positive identification with the in-group and a strong sense of belonging to that group has a profound impact on a person's self-concept. Using the Multi-group Ethnic Identity Measure (MEIM, Phinney, et al., 1997), a self-report instrument that includes items such as "how much a person feels they belong to their group", they compared African Americans, Latino Americans and White Americans with regard

to their identification as members of their racial/ethnic groups and as American citizens. They also examined how both racial/ethnic and national identity related to self-esteem. Results indicated that positive racial/ethnic identity was a predictor of self-esteem for all groups, but that an American identity was only a predictor of self-esteem for white participants. For minority/negatively stigmatized groups, the relationship between self-esteem and racial biases highlights the importance of understanding the factors associated with the formation of positive in-group biases.

Social Identity Theory, Balanced Identity Theory and Phinney's Ethnic Identity Development Theory, all motivated the present work in their converging premise that there is an important relationship between intergroup preferences and the self-concept. African Americans are a particularly useful population to examine the relationship between intergroup preference and self identification because on the explicit level previous research has found that they exhibit an in-group preference, which is in congruence with Social Identity Theory. In contrast, on the implicit level there is a lack of balance and a lack of positive in-group biases that diverges from the abundance of literature pointing to the notion that in-group bias is a natural and normal occurrence. Studying this population allows social scientists to observe the social conditions under which cognitive balance may or may not form in members of groups at the lower end of the social status spectrum.

Implicit measures of racial preferences of high status groups such as European American adults have revealed consistent pro-white preferences (Dovidio & Gaertner, 2000; Dovidio, Kawakami, & Gaertner, 2002; Nosek, Banaji, Greenwald, 2002). Indeed, Nosek and colleagues (Nosek, Banaji; & Greenwald, 2002; Nosek, Smyth, & Hansen, 2007) report that nearly 70% of all adults who participated in the study demonstrated an implicit positive bias in favor of white

over black. It is important to note that 72% of their sample consisted of European Americans. Nosek, Greenwald and Banaji (2002) also asked participants who completed the implicit race association task to identify the statement among the following that best described them:

1) I strongly prefer white people to black people

2) I moderately prefer white people to black people

3)I equally prefer white people and black people

4) I moderately prefer black people to white people

5) I strongly prefer black people to white people

Results revealed that European Americans showed a significant explicit preference for members of their racial in-group over African Americans. Nosek et al., (2007) completed a more recent analysis of European Americans' self-reported racial preferences on the Project Implicit website and also found an explicit in-group bias. This pattern of findings, however, is not the norm, and a strong explicit preference for the racial in-group is not always observed in European Americans (particularly younger individuals) when using tasks that directly assess their endorsement of prejudice or stereotypes. Baron and Banaji (2006) examined the explicit preferences of European American young adults (mean age = 19) in a forced choice picture task that used white and black faces as stimuli. Results revealed that 46% of European American young adults show an explicit preference for their racial in-group over their racial out-group. The 21st century has been defined as the first time in history when European-Americans explicitly evaluated African Americans as favorably as they do their own racial in-group. Kuklinksi and Cobb (1998) suggested that when prejudice is measured European Americans do not explicitly endorse negative stereotypes (e.g., whites are smarter than blacks).

Interestingly, there is evidence that African Americans have stronger explicit in-group preferences than do European Americans (Nosek, et al., 2007). Social norms may be the driving force behind these differences. While appearing prejudice is an issue for European Americans, who can consequently become concerned with self-presentation, appearing proud of the in-group may be a valued social norm for African Americans. The 21st century has also been defined by The Civil Rights and Black Power Movements, which have had profound effects on African Americans' explicit in-group biases (Dansby, 1972; Schuman & Hatchett, 1974;Williams & Morland, 1976; Marshall, 1995; Stevenson, 1995). Contradictory to the explicit in-group bias that has been observed in African Americans on ratings of group preference (e.g., warmth scales), there is an abundance of evidence that shows African Americans and other stigmatized groups do not show an implicit preference for their in-group and that they often endorse the negative stereotypes associated with their own group (further discussed below).

Evidence of an Absence of an In-group Bias

Given how normative a preference for in-group seems to be (particularly on the explicit level and self-presentation demands aside), it is perplexing when we observe an absence of an in-group preference, especially on implicit measures. Interestingly, there are a few documented cases of such an absence. Most prominently, when African Americans are examined, they consistently report no mean level preference for their racial in-group on implicit measures. Disadvantaged groups may show this lack of an in-group bias for various reasons such as: 1) to protect their self-esteem and/or 2) because of the motivation to see their society as fair. Addressing the first explanation, Burkley and Blanton (2008) described the phenomenon of endorsing stereotypes about same-race group members as *negative in-group stereotyping* and

found that it can protect self-esteem. This is an adaptive strategy that allows the individual to rationalize their interpersonal failures by associating them with their group identity and comparing their life outcomes (e.g., educational and social class attainment) with those of members of their in-group rather than those of higher status out-group members. In their study of women who failed a math test, Burkley and Blanton (2008) found that endorsing the stereotype that women do not do as well in math in comparison to men, buffered their self-esteem but only for female participants who were given the opportunity to embrace the stereotype. They also observed that the endorsement of the stereotype increased following failure on a math exam. These findings provide evidence that negative in-group stereotyping and out-group preferences may function to protect low status group members' self-esteem.

Jost and his colleagues provide further explanation of why people may internalize negative in-group stereotypes. Their System Justification Theory (SJT; Jost & Banaji, 1994) focuses on the motivation people have to see their society as fair and legitimate. System Justification Theory suggests that being part of a socio-political system motivates people to become accepting of the social status of their group and value the dominant (high status) group, leading to a lack of an in-group bias in non-dominant group members and strong in-group biases in dominant group members (Jost & Banaji, 1994; Jost, et al., 2002 ; Jost, Banaji, & Nosek, 2004; Baron & Banaji, 2009). According to SJT, the absence of an in-group bias observed in low status group members is one of the ways in which the social hierarchy is maintained. Members of these groups appear to feel forced to choose between supporting the group and endorsing positive attitudes toward in-group members or forming positive out-group attitudes and rationalizing the status quo of their society, which places their group in a low status position.

Turner and Brown (1978) questioned the circumstances under which members of low status groups show positive in-group biases. They showed that the only condition under which members of low status groups showed a positive in-group bias was when they saw the social system as unjust. They also found that the more that individuals from low status groups agreed that social status differences were legitimate, the stronger their positive out-group bias. Similarly, Jost and Burgess (2000) found that the stronger low status group members' belief that the society they live in is just and that the group distinctions made between dominant and non-dominant groups are rational, the stronger their positive bias toward the higher status out-group. This suggests that experiences and messages that counteract these group distinctions may be associated with the formation of positive in-group biases in negatively stigmatized group members.

It is important that scientists are able to account for the social and psychological factors that underlie diminished positivity toward the in-group among culturally lower status groups. Similar to Social Justification Theory, Social Dominance Theory (SDT; Sidanius, 1993) proposes that in order to minimize group conflict, members of a society form biases that support the notion that one group (e.g., European Americans) is superior to another group (e.g., African Americans). Based on SDT, it is possible to generate predictions about when a person will accept or reject systems that classify one group as superior to another. The theory specifies a relationship between individuals' social dominance orientations (high to low) and their social group preferences (Sidanius & Pratto, 2001). Individuals who exhibit a preference for and value the social system are classified as high in social dominance orientation (SDO), while those low in SDO are more likely to exhibit preferences that are not in line with the system's social hierarchy (e.g., positivity towards black versus white). High SDO individuals are more likely to

accept a system of inequality than are low SDO individuals. (Pratto, Sidanius, Stallworth & Malle, 1994; Overbeck, Jost, Mosso, and Flizik, 2004). Overbeck, et al., (2004) found that those who were low in SDO were more likely to prefer their in-group. In contrast, those who were high in SDO had stronger out-group preferences and attitudes that were congruent with the social status of their group. This line of research suggests that messages that individuals from low status groups receive about their ranking in comparison to members of the out-group (particularly messages that portray them positively and that are not congruent with the social system) may be associated with the strength of their positive in-group bias.

Of note, the current study did not aim to adjudicate among these various theories. Instead, the goal was to clarify the factors that are associated with the formation of positive in-group biases in members of a negatively stereotyped group. To this end, multiple theories provide useful frameworks within which to generate possible explanations for within-group variability in implicit racial preferences among African Americans, whereby some individuals develop greater positivity toward the white (higher status) out-group while others develop greater positivity toward the black (lower status) in-group.

Rudman, Feinberg and Fairchild (2002) examined the implicit preferences of minority, negatively stigmatized groups (overweight and poor people) and compared them to the preferences of high status minority groups (Jews and Asians). Results revealed that higher status minority groups have a higher degree of implicit in-group bias than do lower status groups. The authors concluded that minorities with the lowest status are those who are most likely to suffer from in-group devaluation. This line of research motivated the current study because we wanted to examine a devalued racial group and the factors associated with their in-group positivity as

well as the extent to which the negative stereotypes associated with the group may be implicitly internalized.

In a seminal study of implicit biases, Nosek, Banaji and Greenwald (2002) reported that approximately 50% of African American adults exhibit greater implicit positivity toward whites than blacks. They explained this implicit pro-white bias as indicative of negative associations about African Americans are common among black individuals, just as they are among white individuals. It is also crucial that we are able to explain the other half of African Americans who do not show this positive white bias, and despite the negative portrayal of their group, form positive in-group biases. While half of this population's implicit biases reflect the negative stereotypes associated with the group, the other half have biases that do not align with the negative cultural messages about their group. There is a tension between how society portrays their group and the desire to have positive in-group biases. This tension is reconciled by African Americans either falling into the group with an out-group bias or the group with a positivity toward the in-group.

Livingston (2002) also examined the implicit racial preferences of African American students using a modified version of the IAT that paired positive and negative words with African American and European American names (e.g., Tyrone and Adam) and compared scores to those obtained on a traditional IAT that used pictures of faces. Regardless of the implicit measure used, Livingston found no evidence of a positive bias among African American students for their racial in-group. However, he found significant relationships between perceived negativity of the in-group and implicit racial preferences. Whereas negative perceptions of the in-group were positively associated with explicit positive in-group bias, they were negatively associated with implicit positive in-group biases. The higher African Americans were in

perceived negativity, the more explicit positive bias for their racial in-group. In contrast, the more African Americans' perceived the cultural view of their group as negative, the lower their implicit positive bias for their racial in-group. This set of findings led us to examine how the messages African Americans receive about the status of their group are related to their implicit and explicit racial preferences. Livingston's study also revealed that the more African Americans are in contact with European Americans, the lower their implicit positive bias for their racial in-group. This suggests that when low status groups are in contact with higher status groups their implicit positivity toward their in-group decreases. For this reason, the current study also examined whether there was a difference in the degree of implicit and explicit in-group positivity in both African American children and adults in different school environments (homogeneous/all black versus heterogeneous/mixed).

Ashburn-Nardo, Knowles, and Monteith (2003) also examined the implicit racial preferences of African Americans using an implicit attribution task that paired attributes with race-linked names instead of faces. They found that 60% of African Americans in their sample showed a positive white (out-group) bias, associating positive words with European American names faster than with African American names. Ashburn-Nardo and colleagues also looked at the associations between implicit and explicit preferences. Their findings showed that implicit preferences were positively correlated with explicit preferences ("I feel good about being black"); this outcome was notably inconsistent with earlier research that showed a lack of a relationship between implicit and explicit biases (Nosek, et al., 2002). There was also a positive relationship between positive implicit in-group bias and how much participants explicitly endorsed the statement, "In general being black is an important part of my self –image". Taken

together, this study's findings suggest that African Americans' implicit and explicit racial biases may be more tightly related than are implicit and explicit racial biases of European Americans.

The Importance of Studying the Development of Implicit Preferences

Developmental research has provided evidence that even babies are able to discriminate between different groups based on perceptual cues (e.g., paying more attention to same race faces than other race faces; Bar-Haim, Ziv, Lamy, & Hodes, 2006). These perceptual categories form meaning with the development of language and formation of categories. Between ages 3 to 4 years old, children begin to differentiate people based on skin color and other phenotypical cues, and by elementary school these categories are fully formed and take on meaning (Quintana, 1998; Hirschfeld, 1998). The development of an identification with a group leads to the formation of positive and negative feelings about different groups (Katz, 1982).

By preschool, children of European descent typically have an explicit positive bias for their racial in-group, particularly when the comparison group is African American. Glover and Smith (1997), for example, examined European American preschoolers' responses on the Preschool Racial Attitudes Measure II (PRAM, Williams, Best, Boswell, Mattson, & Graves, 1975), an explicit, forced choice picture task in which children were asked to assign positive or negative traits to people from different social groups. Results revealed a positive bias among study participants for white in comparison to black pictures. Aboud (2003) also used the PRAM to investigate in-group biases in European American children and similarly found an explicit preference for their racial in-group present by age 5. This explicit in-group preference that European American children have can also be seen in their playmate preference. Castelli, Carraro, Tomelleri, and Amari (2007) examined the racial preferences of children ages 4-7, using an explicit playmate preference task. Children were also given a list of four positive words (nice,

happy, clean, and likable) and four negative words (ugly, sad, dirty, and bad) and asked to attribute them to colored drawings of white and black children. The participants (who were mostly white) preferred to play with white children more than black children and were more likely to associate positive words with white drawings than black drawings. There is evidence that as European American children get older they report more egalitarian attitudes with age and an awareness of social norms (Baron & Banaji, 2006; Doyle & Aboud, 1995). This shift toward explicit egalitarian intergroup attitudes begins to occur after age 7. This suggests that with older participants it is particularly important to use implicit measures in which responses are not easily controlled to reflect societal norms.

Studies in child samples have typically used a child-friendly version of the IAT (Baron & Banaji, 2006) that was slightly modified from the standard, adult IAT in two ways: (1) pictures of black and white children instead of adults are presented, and (2) voice recordings of attribute words are presented instead of printed words that participants read. Using this measure, research has revealed that by age 6, European American children resemble adults in that they exhibit implicit pro-white preferences (Baron & Banaji, 2006). Unlike explicit preferences, which show a reduction in bias with age among white participants, implicit racial preferences remain stable from childhood through adulthood and begin to become unrelated to explicit preferences around age 10 (Baron & Banaji, 2006; Dunham, Baron, & Banaji, 2008). The absence of a difference in implicit pro-white preferences observed between European American children and adults means that these associations are learned early and may not be very malleable. The goal of the current study is to similarly investigate the relationship between age and implicit preferences in an African American sample.

One debate in the literature is whether the development of implicit preferences is better represented by a slow or fast learning model. Dunham, Baron, and Banaji (2008) criticized slow learning models of implicit cognitions in which associations are learned over time and increase with age. This is what we see at the explicit level with European Americans, who learn with age that it is not socially acceptable to flaunt negative out-group biases. In contrast, the stability of implicit pro-white preferences across development is consistent with a fast learning model in which implicit cognitions such as in-group favoritism and/or sensitivity to cultural knowledge are learned early and remain stable across development. In white children this in-group favoritism may develop fast while sensitivity to cultural knowledge develops slowly, or vice versa. Dunham et al., (2008) suggested that while a fast learning model may provide an appropriate explanation for the development of European Americans' in-group bias, it may not be suitable for explaining the development of the intergroup biases of minority/disadvantaged groups. The current study will further examine this debate by observing the relationship between explicit and implicit in-group biases of African Americans with age. Findings consistent with a fast learning approach do not negate the possibility that implicit cognitions could be learned slowly. Inclusion of an African American sample allows us to see if an early development of an in-group bias is the default, eventually decreasing with age as individuals learn that their group is at the lower end of the social hierarchy (cultural knowledge). This pattern would be confirmed by our data if the younger cohort of the study has a stronger implicit in-group/black positive bias in comparison to the older cohort.

Children's Understanding of Cultural Knowledge Regarding Group Social Status:

Dunham, Baron, and Banaji (2006) compared the implicit preferences of two groups (European-Americans and native Japanese individuals who lived in a rural Japanese village with

little to no direct contact with racial out-groups). They measured participants' preferences towards multiple groups (Europeans American, Japanese, and African American). European American children and adults showed a stronger implicit in-group bias when the comparison group was African American than when it was Japanese. Japanese participants' only exhibited an implicit positive in-group preference when the comparison group was black, but not when the comparison group was white. The status of the comparison group appears to play a significant role in determining whether or not there will be a positive racial in-group bias. Further, this in-group bias is particularly robust when the comparison out-group is African American.

Sensitivity to cultural messages about the status of social groups emerges surprisingly early in development. By age 3 years, children are aware of many social biases and can understand which social groups are considered better off and more highly regarded than others (Nesdale and Flesser, 2001; & Nesdale & Scarlett. 2004). Olson, Kinzler, Shutts, and Weisman (2011) provided evidence for this by showing that children associate higher value objects with white people more readily than they do with black people or people of mixed race. They also found that mixed raced people were placed higher on children's group based social hierarchies than black people, which the authors interpreted as indicating that children are sensitive to society's group representations regarding race. The higher value placed on specific groups impacts children's intergroup biases.

Unlike their European American counterparts, African American, preschool-aged children express either an explicit positive bias toward the racial out-group or no bias at all (Clark & Clark, 1947; Corenblum & Annis, 1987; Corenblum, 2003; Gibson-Wallace, Robbins, & Rochat, in press). Mamie and Kenneth Clark conducted pioneering research examining racial preference in African American children (Clark & Clark, 1947). They concluded that African

American children had a strong white bias and were more likely to prefer and to assign positive adjectives to a white doll than to a black doll. These studies by Clark and Clark influenced the *Brown vs. Board of Education* case in 1954, which desegregated American schools, with the courts claiming segregation had a negative impact on African American children's self/group identity. The children in these early studies were as young as preschool age. Gibson-Wallace, et al., (in press) modified the Clark and Clark doll study to further examine the white doll preference first observed by Mamie and Kenneth Clark. In general, their results confirmed that there is a systematic white or lighter skin preference. They also conducted the modified Clark and Clark doll study on European American, Indian American, and South Pacific children. There was a white/lighter skin preference among all groups of children. This may be explained by Colorism, a form of prejudice that like racism treats humans differently based on how light or dark their skin is. While race and the concept of racism is very unique to the Western world, Colorism can be globally applied (Hunter, 2005;Norwood, 2014). In general, there is a global phenomenon in which people of lighter skin make more money, have higher educational attainment, live in better conditions than those of darker skin (Arce et al. 1987; Keith & Herring, 1991; Espino & Franz, 2002; Hill, 2000; Rondilla & Spickard, 2007). While racism rooted in divisions between black and white is a uniquely Eurocentric/American social concept, colorism can be seen as a divider within various groups around the world.

A nascent body of research on the development of implicit preferences among African American children has revealed a lack of an implicit in-group bias. Baron and Banaji (2009) were among the first to examine the implicit preferences of African American children between ages 5 and 12 using the IAT. These authors found that on average, participants did not exhibit a bias for their racial in-group when the comparison group was white. This was the first study to

show that there is no relationship between age and the implicit preferences of African Americans. In more recent research, Newheiser and Olson (2012) obtained similar findings. These researchers compared the implicit racial preferences of both African American and European American children between 7 and 11 years old. They wanted to observe if children of a low status group (African Americans) exhibited the same degree of in-group bias as children from a high status group (European Americans). They also used a revised version of the IAT to measure the extent to which both European American and African American children associated their racial group with high status stimuli (nice car, big house, large pile of money) vs. low status stimuli (low-income housing, a pile of pennies, and old car). Results indicated that only European American children exhibited an implicit positive in-group racial bias, associating their racial group with higher status objects (nice car, big house, large pile of money). In contrast, African American children, particularly those who had a strong explicit preference for high-status over low-status stimuli, exhibited a lack of an implicit in-group bias. This study suggests that not only are children sensitive toward cultural knowledge, but that preference for highly valued objects in society predicts preference for highly valued group.

In an early study focused on the development of implicit identity as well as implicit preferences, Dunham, Baron and Banaji (2007) examined patterns of response on a child IAT task that included black, white and Hispanic faces as stimuli in a sample of Hispanic American children and adults. Consistent with earlier research that compared Japanese and European American samples (Dunham et al., 2006), both child and adult participants exhibited strong in-group preferences when the out-group was black. The authors also measured Hispanic Americans' implicit identification using a modified IAT in which good and bad words (e.g., *nice vs. yucky)* were replaced with self and other words (e.g., *me* vs. *them*). Findings showed that

children associated themselves with photographs of other Hispanic Americans when the comparison group was African American, but that this implicit in-group identity was not evident when the comparison group was white. This was not the case for Hispanic American adults who showed implicit in-group identification with both comparison groups. This was the first study to examine the development of implicit identity. The goal of the current study was to similarly examine the development of implicit preferences and identity in African Americans.

Factors Associated with Racial Preferences

The Impact of School Make- Up on Racial Preferences:

Research has examined the role of school/community racial make-up in the formation of implicit and explicit biases in children (McGlothlin & Killen, 2010; Newheiser & Olson, 2012). McGlothlin and Killen (2010) observed the racial biases of African American and European American children between ages 7 and 10 using an Ambiguous Situations Task with pictures of either black or white children performing immoral acts (e.g., stealing, not sharing, cheating). They also looked at the difference in racial biases between European Americans who attended racially homogenous vs. heterogeneous schools. Some of the stories used in the task involved a black transgressor and a white victim and others involved a white transgressor and a black victim. Children were then asked to rate how bad or good the immoral act was. Results revealed that European American children from homogenous schools rated acts committed by the black transgressor more negatively than those committed by the white transgressor. In contrast, African American and European American children from heterogeneous schools did not show a bias. There was no difference between African American and European Americans' ratings of the Black transgressor, indicating European American and African American children have shared representations/stereotypes of black people as a group.

Newheiser and Olson (2012) also examined the role of school racial composition in the implicit racial preferences of African American and European American children, but similar to McGothlin and Killen (2010), they only looked at the impact of school diversity on one subgroup of participants (in this case, their European American sample). They found no differences in implicit preferences of European American children as a function of the racial composition of the school. The current study is the first to examine how school racial composition relates to implicit racial biases in a sample of African American children and young adults.

Although no one has examined the impact of school composition on implicit preferences among African Americans, Dutton, Singer, and Devlin (1998) examined its impact on explicit racial preferences in African American children between ages 8 and 11. Results revealed that children from integrated schools and predominantly white schools were more likely to prefer their racial out-group than were children in predominantly black schools. The African American children in predominantly black schools were more likely to choose the picture of their in-group race when asked "Which person would you like to be" than were those African American children in integrated or predominantly white schools. This suggests that African American children's racial preferences can vary based on their school context.

We were unable to locate any published studies on differences in implicit preferences between young adults who attend Historically Black Colleges (HBCUs) versus Predominantly White Institutions (PWIs). Some evidence indicates that students at HBCUs are more likely to endorse cultural values that emphasize African American pride and history than are African American students at PWIs (Cokley, 1999). This pattern of values could reflect differences between the curricula in these two school settings. For example, HBCU's offer significantly more courses that explicitly and exclusively focus on African American history and or cultural

perspective (Cole, 2006). Of course, students with different cultural values may gravitate toward different school environments. This would suggest that it is not just the school environment contributing to their racial biases, but also the messages that they have received about the value of their racial group prior to going to college. Although understanding the foundation of differences between students at these different types of schools is beyond the scope of the present study, one goal is to describe similarities and differences in implicit and explicit racial preferences between African American students in these different learning environments.

The Impact of Racial Socialization on the Racial Preferences of Stigmatized Groups:

Racial socialization is the process by which individuals are prepared physically and emotionally to function in a society where their group is not consistently valued and often negatively stereotyped (Peters, 1985). Thornton (1997) characterized racial socialization among African Americans as the practice of conveying messages about positive self-image, understanding discrimination based on race, acceptance of being African American, and an emphasis on black history and racial pride. The National Survey of Black Americans found that two-thirds of African American parents reported transmitting some form of racial socialization messages to their children (Thornton, Chatters, Taylor, & Allen, 1990). This finding is of particular interest to the current study because emphasizing positive information about cultural history and heritage has been found to be associated with children's explicit positive racial in-group biases (Knights, et al., 1993; Marshall, 1995; Stevenson, 1994) and their positive self-concept (Ou and McAdoo, 1993). Spencer (1983) examined the association between the transmission of cultural values by African American mothers and their children's explicit, black/in-group bias. In this study, Spencer interviewed parents about the cultural messages they conveyed to their children (e.g., discussion of the Civil Rights era) and regarding their own

cultural attitudes. Results showed that the mothers' pro-black biases and discussion of black history predicted children's explicit positive in-group racial preferences. African Americans commonly endorse experiencing pressure to express positive in-group biases in order to avoid appearing to be "identifying with the oppressor", or "Acting White" (Scheepers, Branscombe, Spears, & Doosje, 2002; Ogbu, 2004; Cook & Ludwig, 2008). As African Americans get older, they are more likely to encounter racism and to become racially socialized to explicitly prefer their in-group (Branch & Newcombe, 1986; Phinney, 1989; Hughes, et al., 2006). With age, African American youths also learn about black history, including information about the Civil Rights Movement and the Black Power Movement that started in order to ensure African Americans had racial pride. Learning this type of cultural information increases explicit in-group biases. The messages infused in the Civil Rights movement endorse ethnic pride and have an impact on the ways in which African Americans see their group. This is supported by a review of the literature that reports a shift in attitudes. After the Civil Rights Movement, African Americans had more positive associations with the color black (Denis, 1968; Williams & Morland, 1976), more positive associations with black skin and facial features (Dansby, 1972; Williams & Morland, 1976), and an overall strengthening in cultural identity (Campbell & Schuman, 1968; Banks & Grambs, 1972; Schuman & Hatchett, 1974). There is also evidence that learning African American history and participating in black cultural activities increases positive ethnic identity (Knights, et al., 1993; Marshall, 1995; Stevenson, 1995). The transmission of positive messages about group history and culture has also been associated with higher academic achievement, self-esteem and overall psychological health in African Americans (Phinney & Chavira, 1992; Neblett, Hammond, Powell, Seaton, & Townsend, 2010). There is also evidence that socialization that primarily focuses on teaching cultural history and

racial pride has a significant relationship with the development of a positive racial identity and better success in school in African Americans (Chavous, et al., 2003). Children who are exposed to cultural pride and to positive messages about race in the home environment score higher on cognitive and behavioral competence measures than do children who do not receive these messages (Caughy, Randolph, & O'Campo, 2002). This line of research demonstrates how important it is for more research to be conducted on the development of positive biases about the racial in-group in African Americans.

There is a lack of research on the relationship between parental attitudes and children's implicit intergroup biases. Sinclair, Dunn and Lowery (2005) examined associations between parents' racial attitudes and European American children's implicit racial preferences. They found that children who had parents who harbored negative attitudes towards African Americans had stronger positive in-group/white biases, particularly if they were highly identified with their parent. We were unable to locate studies that examined the relationship between parents' racial attitudes and the implicit intergroup biases of African American children; therefore, our goal was to investigate to what extent these messages are associated with African Americans' implicit racial preferences.

The Relationship Between Socioeconomic Status and African Americans Racial Preferences:

Although many African Americans are socialized to understand discrimination and to accept being a member of a race that is subject to discrimination, research suggests that an emphasis on black history and racial pride primarily characterize educated, middle-upper class households, suggesting that there are differences in racial socialization practices as a function of SES (Barnes, 1991; Thornton, Chatters, Taylor, & Allen, 1990, Caughy, Randolph, & O'Campo, 2002). African American families have been grouped into three categories based on the kinds of

messages about race transmitted in the household: 1) mainstream socializing parents who socialize their children with a focus on Eurocentric values, but also show some Afro-centric values in their parenting behavior by focusing on cultural history and pride; 2) minority socializing parents, who support the System Justification Theory in that they are accepting of the racist society that they live in and focus more on teaching their children how to recognize discrimination, and 3) Black cultural socializing parents who take a strong, Afro-centric approach to parenting, rejecting Eurocentric values and beliefs (Thornton, et al., 1990, Thornton, 1997)**.** This latter approach emphasizes the importance of education and achievement using beliefs and values associated with African heritage. Older and more educated parents are more likely to take the mainstream approach. The minority socializing experience has been most commonly found in urban, low SES areas and the Black cultural racial socialization approach has been found not to vary based on SES (Boykin and Toms, 1985; Thornton, 1997). These differences seen in the type of racial socialization messages parents from various SES groups transmit, may be related to the degree to which their children have system justifying, negative in-group biases.

Overview of Hypotheses

Explicit Measures:

In general, the sample of African American children and adults in this study were expected to show, a) an explicit identification with and b) preference for their in-group. There were predicted positive associations between age with both explicit preference and explicit identity. We also expected to see differences between participants attending different school types, with stronger explicit in-group preferences among participants attending predominantly African American schools than among those attending racially heterogeneous schools. This

school difference was expected to be particularly evident when comparing college students from Historically Black Colleges to students from Predominantly White Institutions since there is evidence that students in HBCUs feel a stronger sense of belonging (e.g., *"I feel a sense of belonging to my classmates", "I see myself as part of the classroom setting*") than do African American students from PWI's (Chavous, Harris, Rivas, Helaire, & Green, 2004). Finally, we hypothesized that strength of explicit in-group preference among children would be significantly related and congruent to parents' racial attitudes and the different racial socialization messages that children receive. This hypothesis is consistent with previous research that shows mothers' pro-black attitudes and transmission of cultural pride/heritage messages result in positive racial in-group preferences in their children (Spencer, 1983; Knights, et al., 1993; Stevenson, 1994).

Implicit Measures:

When collapsed into a single group, children and young adults were expected to show an implicit out-group preference or no preferences at all. There were no predicted relationships between age and implicit preferences. This lack of a relationship between implicit preferences and age was predicted because previous research has found that implicit racial biases remain stable across development in Hispanic Americans and European Americans (Baron & Banaji, 2006; Dunham, Baron, & Banaji, 2007;Dunham, Baron and Banaji, 2008). Individual differences were not expected to be observed as a function of the racial composition of schools participants attended. We also predicted that parental attitudes and racial socialization messages would be predictive of implicit preferences and identity. These individual differences were predicted in light of evidence that parents racial attitudes and the messages that they send influence their children's racial biases (Sinclair, et al., 2005). Of particular interest to this study is the relationship that different types of messages (e.g. pride versus preparation for bias) have

with African Americans racial implicit preferences. The literature suggests that cultural socialization messages that highlight racial pride are associated with positive in-group biases in African Americans. There is also evidence that those who have received messages about African Americans low social status and are high in feelings of perceived negativity about their group, have lower positive implicit in-group biases than those who are low in perceived in-group negativity (Livingston, 2002).

In terms of adult implicit preferences and identity, we hypothesized that we would find individual differences in adults as a function of the strength of their ethnic identity, as measured by the Multi-group Ethnic Identity Measure (Phinney, 1989;1992). African American young adults with strong ties to their community and with high levels of racial pride were expected to show higher implicit positive in-group preferences than were those with low ethnic identity.

Socio-economic Status:

We expected that participants from predominantly white, middle-high SES groups would be more likely to demonstrate pro-white preferences and identity than participants from predominantly black, lower SES. These differences were predicted based on the literature that shows that there are socio-economic differences in the type of messages African American parents send their children (Boykin and Toms, 1985;Barnes, 1991; Thornton, 1997; Thornton, Chatters, Taylor, & Allen, 1990, Caughy, Randolph, & O'Campo, 2002).

Relationship Between Implicit And Explicit Preferences:

There is mixed evidence about the relationship between African Americans explicit and implicit racial preferences. While some studies have found a lack of a relationship with data showing strong explicit in-group biases in African Americans and weak implicit in-group biases (Baron & Banaji, 2009; Nosek, et al., 2002), other studies have revealed stronger relationships

between this population's explicit and implicit preferences (Ashburn-Nardo, Knowles, & Monteith, 2003). The current study will provide further evidence regarding associations between African Americans implicit and explicit biases. The relationship between explicit and implicit preferences is expected to be stronger in adults than children, particularly since there is evidence for a correlation in African American adults (Ashburn-Nardo, Knowles, & Monteith, 2003), but not so in African American children (Baron & Banaji, 2009; Newheiser & Olson, 2012).

Method

Participants:

A total of 216 African American individuals recruited in the greater Atlanta, Georgia (M=15.37, S=5.73, range= 5-23 years old, 152 girls) served as participants, including 90 in the younger cohort (M=9.09, S=3.05, range=5 -17 years old, 48 girls) and 126 participants in the older, college student cohort (M=19.85, S=1.12, range = 16-23 years old, 104 girls). This age and sample size was chosen in order to permit examination of the relationship between age and the racial preferences of African Americans. In addition, it facilitated direct comparison with the results of an earlier developmental study examining implicit and explicit racial preferences of European American and Hispanic American children and young adults (Dunham, Baron & Banaji, 2006; 2007). Approximately half the younger cohort (53%) tested attended predominantly black schools (over 90% black) and the other half racially integrated schools. Of the college sample, 42% attended a Historically Black college and the other portion attended a racially heterogeneous school.

Procedure:

Participants completed measures either in the laboratory or at their schools. The younger cohort was recruited from schools that provided both written and verbal consent. College

students were recruited from Psychology courses in which they received credit for their participation. An African American experimenter administered all measures to all participants, either in the laboratory or at recruited schools. For child participants, parents completed a short questionnaire measuring the strength of their ethnic identity and racial socialization practices during consent. Parents also completed the SES questionnaire as well as provided information about the racial make-up of the majority of the schools attended by their child. College students were asked to complete the same measure as parents regarding the strength of their ethnic identity. Following the consent process, all participants were seated in front of a computer to complete measures of implicit and explicit preferences and identity. The order of these tasks within each condition was counterbalanced for all participants. The entire study lasted between 30 -45 minutes.

Measures:

Implicit Race Preference Task:

The Implicit Association Test (IAT) provides a measure of the strength of associations between two concepts (e.g., race and positive/negative valence) by comparing the speed with which an individual pairs them (Greenwald, McGhee & Schwarz, 1998; Baron & Banaji, 2006). For example, if an individual more consistently and rapidly pairs black faces (versus white) with positively-valenced words or images (versus negatively-valenced words/images), that individual is thought to exhibit a positive implicit bias for black individuals. In order to facilitate comparisons between children and adults, all tasks were selected so that they were both adult- and child-friendly (Baron & Banaji, 2006). Thus, both child and adult participants completed the child version of the IAT, a computerized task that replaces written stimuli with audio stimuli and substitutes pictures of adults with pictures of children (8 pictures balanced for race-European

American and African American—and sex). Studies have found that children as young as 5 years old have the cognitive and motor skills necessary to complete the task (Baron & Banaji, 2006; Dunham et al., 2006).

The first set of trials were practice trials in which participants were asked to classify pictures of black and white faces that appeared one at a time in the middle of the screen with either a blue or yellow button. Participants pressed one button to respond to all black faces and the other button to respond to all white faces. In the next set of practice trials participants were asked to classify the attribute words that were presented to them via headphones; words were either good (e.g., *good, nice, fun, happy)* or bad words (e.g., *bad, mean, yucky, mad)*. The next block of trials probed the association between the pictures and the words. For example participants were asked to complete a set of trials in which they pressed one button for African American photos and "good" words (presented either individually or paired) and a different button for European Americans and "bad" words. In another set of trials, participants pressed one button for African American faces and/or bad words and another button when they were presented with European American faces and/or good words. Trials only advanced if participants made the correct responses in order to reduce error rates. Location and order of the pairs were counterbalanced.

Implicit in-group bias was measured by comparing participants' speed and accuracy on pairing African American images with good versus bad words to their speed and accuracy when pairing European Americans with the same attributes. An in-group bias was considered to be evident when participants were faster and more accurate when pairing African American faces with good and European American with bad attributes than they are when pairing European American faces with good and African American with bad attributes.

Implicit Race Identity Task:

The Implicit Race Identity Task was identical to the racial preferences IAT, except that positive versus negative attributes, participants heard self-relevant (*me, I, myself and my*) and other-relevant words (*them, their, themselves and they*) (Dunham, et al., 2007). Implicit in-group identity was measured by comparing participants' speed and accuracy on pairing African American images with self versus other words to their speed and accuracy when pairing European Americans with the same attributes. An in-group identity was considered to be present when participants were faster and more accurate when pairing African American images with self relevant words and European American images with other relevant words.

Explicit Tasks:

So that implicit and explicit preferences could be compared, participants completed a forced choice task that required them to express either preference for and identification with one of two neutral photographed faces (one African American, one European American; Dunham, Baron & Banaji, 2007). In each of 8 trials, participants were asked which of the two photos (African American vs. European American) they like the most (4 trials) and which of the two they identified with the most (4 trials). The photographs were gender matched and only differed by race. The same photographs used in the IAT were used in the explicit tasks. In order to examine multiple exemplars, each participant viewed 4 pairs of gender-matched, but racially different children of different race (one African American and one European American). In order to calculate explicit in-group bias, the percentage of trials in which participants preferred and identified with the African American faces over the European American faces was calculated.

Adults' Ethnic Identity Measure:

Adult participants and parents of child participants completed the Multi-group Ethnic Identity Measure (MEIM) (Phinney, 1992), a 23-item questionnaire that probes three aspects of ethnic identity: positive ethnic attitudes and sense of belonging, ethnic identity achievement (learning about positive information about African Americans), and participation in positive ethnic activities (i.e.; church, cultural organizations). Participants rated their agreement with each item on a four-point scale ranging from 1= *strongly disagree* to 4= *strongly* agree. Higher scores are interpreted as indicating a stronger racial identity. This measure has been found to be internally consistent in adults, high school students, and college students with an alpha of .83 in on study (Phinney, Cantu, Kurtz, 1997).

Parents' Racial Socialization Measure:

The Hughes and Chen (1997) Parental Racial Socialization questionnaire was also used. It is a 16-item measure that examines the frequency of parental behaviors and messages transmitted to their children about race. Parents were asked to estimate how many times they sent specific messages about race over the last 12 months on a scale of 0 (none) to 5 (more than seven times) regarding teaching cultural pride and history (*Cultural Socialization)*, teaching about discrimination (*Preparation for Bias)*, and warning their children not to trust other groups (*Promotion of Mistrust)*. Construct validity for this test has been found for Cultural Socialization (alpha =. 86) and Preparation for Bias (alpha =. 91), and Promotion of Mistrust (alpha =. 73) (Hughes & Johnson, 2001).

Socio-economic Status:

Socio-economic status was measured using the Hollingshead Four Factor Scale (Hollingshead, 1975). This is a survey that was distributed to parents and college students. It

was designed to measure both educational attainment and occupational status. Participants rated their education on a 7-point scale that lists highest grade completed, in which 7=graduate/professional training, 6= standard college or university graduation, 5=partial college, at least one year of specialized training, 4= high school graduate, 3=partial high school, 10th or 11th grade, 2= junior high school, including 9th grade, 1= less than 7th grade, 0=not applicable or unknown. They also rated their occupation on a 9-point scale, in which 9=higher executive, proprietor of large businesses, major professional, 8=administrators, lesser professionals, proprietor of medium-sized business, 7=smaller business owners, farm owners, managers, minor professionals, 6=technicians, semi-professionals, small business owners (business valued at $50,000-70,000), 5=clerical and sales workers, small farm and business owners (business valued at $25,000-50,000), 4=smaller business owners (<$25,000), skilled manual laborers, craftsmen, tenant farmers, 3=machine operators and semi-skilled workers, 2=unskilled workers, 1=farm laborers, menial service workers, students, housewives, (dependent on welfare, no regular occupation), 0=not applicable or unknown. This allowed for each participants parents to receive separate education and occupation attainment score, as well as a total parental SES score. Not all participants disclosed SES information (*See Tables 1-2*).

Analysis Plan:

We first tested for the presence of implicit and explicit in-group biases in the younger and older cohorts. A single standard procedure was used to score both the implicit preference and implicit identity measures. This procedure relies on a scoring algorithm that Greenwald, Nosek, and Banaji (2003) developed and that was subsequently modified for use with the child version of the IAT (Baron & Banaji, 2006). For each subject an IAT score (*D,* a form of Cohen's *d)* was calculated by subtracting the mean response latency for stereotype compatible trials from mean

response latency for stereotype incompatible trials. Each participant's implicit identity *D* score was similarly calculated by using the difference between the mean response latencies for identity compatible trials from mean response latency for identity incompatible trials. Separate IAT effects were calculated for the picture stimuli and the auditory/attribute stimuli and then averaged together to produce one score for each block. Participants who had error rates that exceeded 20% of items and for those who went too fast (less than 300 ms) on more than 10% of the trials were excluded. These criteria resulted in the exclusion of 16 participants' data from the analyses focused on the attitude measure and of 26 participants' data from analyses focused on the identity measure. Using one-sample t-tests, aggregated data from both groups were examined to determine if implicit *D* scores were significantly higher than the neutral score of zero (positive in-group preference) or below neutral (positive out-group bias).

Explicit scores were calculated using a scale that was created for the purposes of the present study to indicate the strength of participants' explicit in-group preferences and identity. Separate scores were derived for explicit preference and explicit identity. Scores ranged from 0-4: 0=strong white preference and identity (chose the picture of the white person for all four pairs), 1= white preference and identity (chose the picture of the white person ¾ times), 2= neutral (chose the picture of the white person ½ of the time), 3= black preference and identity (chose the picture of the black person ¾ times), and 4= strong black preference and identity (chose the picture of the black person for all four pairs). As we did in analyses of the implicit task data, we used one-sample t-tests to analyze aggregated data from both groups to determine if explicit scores were significantly higher than the neutral score of 2 (positive in-group preference) or below neutral (positive out-group bias).

In order to compare implicit *D* scores and scores on explicit tasks between gender groups, age groups, and school types (homogeneous vs. heterogeneous), two-sample independent t-tests were conducted. We also utilized bivariate correlation analyses to examine the relationships among measures of implicit preference, implicit identity, explicit preference, and explicit identity. Bivariate Pearson's product moment and Spearman's correlational analyses were also conducted to examine the relationships between dependent variables (implicit preference, implicit identity, explicit preference and explicit identity) and the independent variables (strength of parents' and college students' racial/ethnic in-group identity, frequency with which parents send specific messages about race). Kolmogorov-Smirnov tests were conducted on all independent variables to examine skew. If KS statistics reflected skewed data ($p < .05$), we first log transformed the data in an effort to eliminate skewness. If skewness was not eliminated, we then used the non-parametric-Spearman's rho correlation instead of Pearson's correlation to examine relationships. The dependent variables for children were the parents' scores on the Multi-group Ethnic Identity Measure, parents' scores on the Hughes and Chen Racial Socialization Scale, and parents' socio-economic status (SES). The dependent variables for college students were scores on the Multi-group Ethnic Identity Measure, as well as SES.

We also examined how predictive variables such as age, school type, parents' reports of racial socialization messages, parents' personal attitudes about race and parents' SES, was on children's implicit and explicit racial preferences and identity. For college students we examined how predictive strength of ethnic identity and SES variables were on their preferences and identity. We centered variables to eliminate collinearity between main effects and interactions (Cohen, et al., 2003). Separate hierarchical multiple regression analyses were conducted for implicit preference, implicit identity, explicit preference and explicit identity.

Results for Implicit Measures

Younger Cohort Implicit Preferences:

There were 75 participants in the younger cohort (mean age= 9.32, SD= 3.09, 33 males) that met criteria for inclusion in the analysis; data from 14 whose error rates exceeded 20% were excluded. This cut-off point was determined on the basis of findings in previous research (Baron & Banaji, 2006). Of the 75 included participants, 38 attended homogenous schools and 37 attended heterogeneous schools. Independent samples t-tests revealed no differences in implicit preference *D* scores between boys and girls, t (73)= -.41, p=. 68, or between participants from racially heterogeneous and racially homogeneous schools, t (73)= -.018, *p*=. 99. One sample t-tests comparing average IAT *D* scores to neutral (*D*=0.00) yielded no evidence of significant differences, revealing a lack of an in-group bias (M=. 02, SD= .61), t (74)=. 33 p=. 74. Spearman's correlations revealed a non-significant relationship between implicit preference *D* scores and age, (Spearman's rho= -.04, *p*=. 75). Implicit preferences remained stable across the age range of this sample.

Spearman's correlations also revealed a significant positive relationship between parents' total SES and implicit preferences, Spearman's rho =. 21, *p*=. 04. More precisely, there was an association between IAT *D* scores and parents' total occupation level, Spearman's rho= .23, *p*=.03, such that participants with parents in higher-status occupations showed more positive implicit in-group positive preferences. There was also a significant correlation between participants' implicit preferences and parents' other-group attitudes Spearman's rho= -.24, *p* =. 02. The more that parents endorsed affiliating with and enjoying time spent with members of their out-groups, the lower their children's positive implicit in-group bias. When all participants were included in the analyses, there was no relationship between children's implicit preference

scores and parents' preparation for bias messages, r(69)= -.14, *p*=.13. When examining the different school types, the relationship between implicit preferences and preparation for bias messages was significant for the sample of participants from the homogeneous/all-black schools, r (35)= -.38, *p* =.01, but not for participants in the heterogeneous school sample, r(34)=.18, *p* =.15. This suggests that the relationship between preparation for bias messages and implicit preference scores depends on the type of school African American children attend and whether or not they are in contact with a salient out-group (*See Table 3 for correlations)*.

A multiple linear regression analysis was conducted on IAT *D* scores in order to see if parents' messages about race (preparation for bias) accounted independently for a significant proportion of the variance in implicit preference scores when parents' occupation level, parents' other group attitudes, school type and the interaction between preparation for bias and school type were co-varied. This model significantly predicted IAT scores, R^2 = .17, F (5,59) =2.36, *p* =. 05. Preparation for bias scores was not significant until we probed the interaction between preparation for bias messages and school type. There was a main effect of preparation for bias, b= -.51, t(59)=-2.10= , *p*=.04 and also a significant interaction between preparation for bias and school type, b= .80, t(69)=2.13= , *p*=.04. The interaction was mainly significant for those participants in homogeneous schools. For this sample, parents who were high in preparation for bias had children with lower in-group preferences than children whose parents were low in preparation for bias. The opposite trend was found for children in heterogeneous schools, but there was not a significant relationship when examining this group (*See Figure 1*). There were no main effects of school type (*p*=. 70), parents' total occupation scores (*p*=. 11), or parent's other group attitudes (*p*=. 11).

Younger Cohort Implicit Identity:

There were 65 participants (mean age= 9.57, SD=3.09, 29 males) that met criteria for inclusion in the analysis; 25 were excluded because of error rates. The sample consisted of 35 participants from racially homogeneous schools and 30 who attended racially heterogeneous schools. Independent sample t-tests revealed no differences in implicit identity between boys and girls (p=. 32) or between participants in homogeneous vs. heterogeneous schools (p=. 59). Standard one sample t-tests were used to compare the average implicit identity score to neutral (D=0.00). On average, participants showed a faster response time to Black + self in comparison to White + self, revealing a significant implicit in-group identity (M=. 23, SD= .68), t (64)=2.72, p <. 01). There was a non-significant trend of a positive relationship between age and implicit identity, Spearman's rho =. 24, p=. 06.

Spearman's correlations revealed a non-significant trend for a relationship between parents' total occupation level and their children's implicit identity, Spearman's rho = -.19. p =. 07, as well as with parents total SES scores, Spearman's rho = -.17. p=. 10. There were also trends toward positive relationships between the child's implicit identity scores and both parents' frequency of messages preparing their child for bias, r (57) =. 20, p =. 07, and racial socialization (emphasizing on black pride and history) messages, Spearman's rho=. 19, p =. 08. A multiple linear regression analysis showed that none of these variables independently accounted for a significant proportion of variance in implicit identity scores (*See Table 4 for correlations)*.

College Students' Implicit Preferences:

This sample included 125 college students (mean age=19.86, SD=1.13); only 1 did not meet criteria for inclusion in analyses. The vast majority of the sample was female (103 females, 22 males). Of the sample, 53 of the participants attended a Historically Black College/University

(HBCU) and 72 participants attended a racially heterogeneous college. Standard one-sample t-test showed that on average, college participants showed a faster response time to Black + good vs. neutral in comparison to White + good vs. neutral, revealing an implicit in-group preference (M=. 13, SD= .69), t (124)=2.06, *p*=. 04. Implicit preference *D* scores were not associated with year of school; meaning positive implicit in-group bias was not higher for lower- versus upperclassmen (*p*=. 54). Although the means were in the direction of the hypothesis that students from the HBCU would show stronger implicit in-group positivity than students from the PWI, independent t-tests revealed no significant difference between the IAT *D* scores of students from the predominantly black college (N=53, M=. 23) and those of students from the predominantly white college (N=72, M=. 05), t (123)=1.42, *p*=. 16. Further probing school differences, we conducted two separate one sample t-tests on the means of each college's sample. There was only a significant in-group bias for participants in the HBCU, M=. 23, t (52)=2.68, *p*=. 01. Students in the heterogeneous college did not show a significant in-group bias M= .05, t (72)= .61, *p*=. 55 (*See Figure 2)*. Even though the two groups do not differ from one another statistically, when examined separately, only one group exhibited an implicit preference for the in-group. Participants were also asked about the racial make-up of the schools they attended prior to college (39 attended predominantly Black schools, 35 attended predominantly White schools, and 48 attended racially mixed schools). Results indicated that there was only a significant positive in-group bias for college students who attended predominantly Black schools from K-12, t (38) = 2.28, p= .03.

Spearman's rho correlations revealed a significant negative relationship between college students' implicit preferences and the total education level of their parents, Spearman's rho= -.15, *p* = .05. This relationship was mainly driven by a negative association between students'

implicit preferences and their fathers' level of education, Spearman's rho= -.20, *p*=. 02. The higher the fathers' education level, the lower the students' implicit in-group positive biases. There was also a non-significant trend toward a negative correlation between students' implicit preferences and scores on the other-group attitudes subscale of the Multi-group Ethnic Identity Measure, Spearman's rho= -.13, *p* = .08. When broken down by school type, the relationship between implicit preferences and other group attitudes was not significant for students in the homogeneous college, Spearman's rho =. 06, *p* =. 35. In contrast, there was a significant, negative relationship observed between implicit positivity towards the in-group and students' other-group attitudes for students in the heterogeneous school, Spearman's rho= -.20, *p* = .05. The stronger students' in heterogeneous/mixed-race schools implicit in-group preferences, the less likely they were to self-report positive other-group attitudes (*See Table 5 for correlations)*.

We conducted a regression analysis in order to examine what factors (fathers' education, other group attitudes, school type, or the interaction between other-group attitudes and school type) were predictive of college students' implicit preferences. Results revealed a non-significant trend for the model including these factors to predict IAT *D* scores, R^2 = .07, F (4,119) =2.10, *p*=. 09. No main effects were observed for fathers' education level, school type, or other-group attitudes (*p*>.05). There was a non-significant trend toward an interaction between school type and other group attitudes, b=-.46, t(119)=-1.71, *p*=.09. The relationship was mainly observed in heterogeneous schools, where the higher students scored on positive other-group attitudes, the lower their implicit in-group preferences. In contrast, the relationship between other-group attitudes and IAT *D* scores did not predict the strength of students' in-group preference in participants attending the all-black/homogeneous school (*See Figure 3).*

College Students' Implicit Identity:

This sample included 125 college students with only 1 who did not meet criteria for inclusion in the analysis. On average, college students showed a faster response time to black + self in comparison to white + self, revealing a significant implicit in-group identity (M=. 41, SD= .66), t (124)=6.97, *p*<. 01. There was no significant association between implicit identity and year in school (*p*=. 97). Independent sample t-tests revealed no differences in implicit identity between students attending colleges with different racial compositions, t (123) .50, *p* =. 62.

Spearman's correlations revealed a significant correlation between the total score on the MEIM and college students' implicit identity, Spearman's rho=. 23, p<. 01. The higher the scores on the MEIM, the stronger the students' implicit identity (*See Figure 4)*. There was a specific connection between implicit identity scores and scores on the belonging subscale of the MEIM, Spearman's rho=.22, *p* <.01. The more students felt they belonged to their racial in-group, the higher their implicit in-group identity. There was also a significant, negative relationship between implicit identity scores and self-reported, other-group attitudes, Spearman's rho= -.20, *p*=.01, such that the more students endorsed statements such as*, "I enjoy being around people from ethnic groups other than my own"* and, "*I am involved in activities people from other ethnic groups"* the lower their implicit in-group identity (*See Table 6 for all correlations)*.

A multiple linear regression was conducted to see if scores on the MEIM could predict implicit identity scores, when controlling for school type and the interaction. The was a trend for this model to predict implicit identity, R^2=.05, F (3,121)=2.24, *p*=.09. There was no significant effect of school (*p*=.738), but there was an effect of scores on the MEIM, b=.49, t(121)=2.22, *p*=.03. The interaction between school type and scores on the MEIM was not a significant

predictor of implicit identity scores (p =. 24). We then computed a model with just scores on the MEIM as the predictor variable. This model was statistically significant, R^2=.04, F (1,123)=5.34, p=.02. Higher scores on the MEIM significantly predicted higher implicit in-group identity scores, b=. 27, t (123)=2.31, p=. 02.

Comparison of Younger Cohort and College Students' on Implicit Preferences and Identity:

Implicit Preferences:

When looking at the entire sample (younger and older cohort), 200 participants were used in the analysis examining the relationship between age and implicit preferences. Among all participants, approximately 43% had an implicit out-group/white bias. One-sample t-tests revealed a trend of an IAT *D* score in favor of the in-group/black faces (57%), t (200)=1.89, p=. 06. Independent sample t-tests were used to compare those who were above the median age of 19 years (n=111) to those below the mean (n=89). There was no significant difference in implicit preference between the younger (M=. 03, SD=. 62) and the older cohort (M= .14, SD=. 69), t (198)= 1.21, p=. 23. We also compared those who were above the mean age of 15.9 years (n=129) to those below the mean (n=71). There was also no significant difference in implicit preference between the younger (M=. 01, SD=. 62) and the older (M=. 13, SD=. 68) groups, t (198)= 1.29, p=. 20.

Since these group comparison were conducted based off of arbitrary group boundaries (mean and median) we decided to further probe the relationship between age and implicit preferences using a bivariate correlation. Interestingly, a Spearman's rho correlation revealed that there was a non-significant trend toward a positive association between age and IAT *D* scores, Spearman's rho=.12, p= .08. This suggests that positive in-group implicit preferences may increase with age.

Factoring in school type, there was a stronger relationship between the racial make-up of school and implicit preferences in the older cohort, than in the younger cohort. (*See Figure 5)*, suggesting it may not be until African Americans are older that the racial make-up of the schools they have attended play a role in the differences in racial preferences. Although the difference in implicit preferences was not different between students attending the HBCU versus those at the PWI, there was a trend of students from the HBCU having higher scores on the IAT, reflecting stronger in-group positivity than students from the PWI. No signs of difference based off of school racial make-up were detected at all in the younger cohort.

We also examined differences in the relationship between implicit preferences and age based on whether or not participants had positive versus negative in-group preferences. Two groups were computed by placing all those who scored above zero on the implicit preference measure in one group and all those scoring below zero in another group. Participants were divided into two groups: 1) those with positive IAT scores, indicating an in-group bias (n=114) versus 2) those with negative IAT scores, indicating an out-group bias (n=86). Results revealed that there was no relationship between age and IAT *D* scores for those who have a white, out-group bias, Spearman's rho= .11, p= .34. In contrast, there was a significant relationship between age and implicit preferences for those who have a black, in-group bias, Spearman's rho = .33, p<.01**.** This suggests that a white bias may develop early and remain stable, while a black bias may develop and increase in strength with age.

Implicit Identity:

There were 190 participants who met criteria for inclusion in analyses of implicit identity *D* scores. One-sample t-test revealed a significant implicit in-group identity, with approximately 71% identifying with black faces faster than white faces, t (189)=7.18, p <. 01. The first analysis

used a median split. There were 111 participants from the older group and 79 from the younger group. Independent t-tests revealed no difference between the younger group, (M=. 26, SD=. 67) and the older group (M=. 41, SD=. 67), t (188)= 1.51, p=. 13. In contrast, when we computed groups based off a mean split, independent t-test revealed a trend of a difference between the younger cohort (N=61, M=.22, SD=.68) and the older cohort (N= 129, M=.41, SD=.66), t(188)= 1.845, p=.07. As with the implicit attitudes comparison, these arbitrary boundaries led us to also compute a bivariate correlation to further examine the relationship between age and implicit identity. There was a significant, positive correlation between age and implicit identity, Spearman's rho=. 14, *p*=. 05, revealing that older participants had a stronger implicit in-group identity than younger participants.

We also looked at the relationship between age and implicit identity D scores separately in those who scored above zero (neutral) showing an implicit in-group identity (n=134) and in those who scored below neutral showing an implicit out-group identity (n=56). Bivariate correlations revealed no relationships with implicit identity *D* scores and age for those who have an implicit in-group/black identity, Spearman's rho= .02, *p* = .83 or those who have an implicit out-group/white identity, Spearman's rho=. 04, *p*=. 78, suggesting that it is only when you average all participants together that we see this relationship. When looking at the entire sample's age, the effect size of .14 is a small association between age and implicit identity, which means that the lack statistical significance we observed when observing these groups separately is due to statistical power.

Results for Explicit Measures

Younger Cohorts Explicit Preferences:

Data from all 90 participants were used for this analysis (mean age= 9.09, SD=3.03, 42 boys). Of the sample, 48 attended homogeneous schools and 42 attended heterogeneous schools Children chose the pictures of black people more often than the pictures of white people when asked to identify people whom they "like the most". Spearman's rho correlations revealed no relationship between explicit preferences and age, Spearman's rho .06, p =. 28. Independent sample t-tests revealed no differences in explicit preferences between girls and boys, t (88)= -1.36, p=. 18, or between students from heterogeneous and homogenous schools, t(88)= -.66, p=. 51. When averaged together, the sample scored significantly above neutral, showing an explicit preference for black over white faces, M=2.64, SD=1.26, t (89)=4.86, $p < .01$. The chance value was 2.

There was a non-significant trend of a positive relationship between mothers' occupation level and their children's explicit preference for black over white faces, Spearman's rho=. 17, p = .07. The higher mothers' occupational level the stronger children's explicit positivity toward the in-group. Pearson's moment correlation revealed a significant relationship between parents' messages preparing children for bias and strength of explicit in-group preference, r (80)=. 20, p=. 04. The more parents sent messages preparing their child for racism, the stronger their child's explicit preference for black faces over white faces. A multiple linear regression was conducted to examine which independent variables (school type, preparation for bias messages, and their interaction) significantly predicted explicit preference. There was a trend for parents' preparation for bias messages significantly predicting children's explicit preferences, R^2 = .04, F(1,78)= 3.19, p=08. When we factored in school type and the interaction, none of these

variables predicted explicit preferences, R^2 = .07, F(3,76)= 1.87, *p*=.14. This makes sense because the model with only preparation for bias messages revealed that there was a non-significant trend of it being a predictor with a *p*-value of .08.

Younger Cohorts Explicit Identity:

Data from 90 participants were used for this analysis. There was no association between age and explicit identity scores, Spearman's rho =. 09, *p*=. 40. Independent sample t-tests revealed no differences in explicit preferences between girls and boys, t(88)= -.361, *p*=. 72, or between students at heterogeneous and homogenous schools, t(88)=-.413, *p*=. 68). When their scores were averaged, the younger cohort scored significantly above neutral, showing an explicit identification with their in-group, M=3.38, SD=1.09, t (89)=12.03, *p* <. 01. They chose the pictures of black people more often than the pictures of white people, as people who "looked most like you".

In terms of SES, Spearman's rho correlation revealed significant relationship between the younger cohorts' explicit identity and mothers' education, Spearman's rho=.21, *p*=.03, and mothers' occupation, Spearman's rho=.22, *p*=.02. The higher the mothers' education and occupation level, the stronger their child's explicit in-group identity. In terms of parents' attitudes, there was a relationship between parents' other-group attitudes and children's explicit identity, Spearman's rho=.21, *p*=. 03. The more positive attitudes parents have about interacting with members of their out-group the stronger their child's explicit in-group identification. Although parents' racial socialization messages were not significantly associated with their children's explicit identity (*p*=.181), this relationship was significant for participants attending all black/homogeneous schools, Spearman's rho=.27, *p*= .04, but not for those attending heterogeneous schools, Spearman's rho= -.08, p=.31. This suggests that sending children

messages about black pride and history only has a positive effect on African American children's explicit in-group identity if they are in predominantly black environments (*See Table 7 for correlations)*.

A multiple linear regression was conducted to examine which independent variables (mothers' occupation, school type, parents' other-group attitudes, parent's racial socialization messages, and the interaction between school type and racial socialization messages) significantly predicted explicit identity scores. Including all variables there was a non-significant trend toward a significant model, R^2 = .13, F (5,69)=2.03, *p* =. 09. The model did reveal parents' other-group attitudes were a significant predictor, b=. 75, t (69)=2.16, *p*=. 03. We therefore computed a model with parents' other group attitudes as the sole predictor. This model accounted for 5% of the variance, R^2 = .05, F (1,80) = 3.93, *p*=. 05. As parents' positive attitudes about other-groups increased, as did children's explicit in-group identity, b= .60, t (80)= 1.98, *p*=. 05.

College Students' Explicit Preference:

Data from all 126 college students were used for this analysis. On average, participants scored significantly above neutral (2), showing an explicit preference for the black faces over the white faces, M=3.14, SD=1.00, t (125)=12.81, $p < .01$. This sample chose pictures of black people more often than pictures of white people as people whom they "like the most". Preference ratings were not associated with year in school, F(4,118)= .50, *p*=. 74. There was a non-significant trend toward a difference in explicit preference between students from the homogeneous college (M=3.30, SD=. 93) and students from the heterogeneous college (M=3.03, SD= 1.04), t (124)=1.53, *p* =. 07. A One-Way ANOVA was conducted to analyze for differences in explicit preference among students who attended predominantly black,

predominantly white, or mixed schools from grades K-12. Results revealed a significant difference among groups, F (2,120)= 4.26, p=. 02. Post-hoc, Tukey's analyses indicated that the difference was only significant between students who came from predominantly black schools (M=3.35, SD= .79) vs. those who came from predominantly white schools (M=2.81, SD=1.17) *(p*=. 012).

Spearman's correlations revealed trends of relationships between participants' explicit in-group preference and total parent SES scores, Spearman's rho=.13, *p*=.08 . This relationship was driven by the connection between explicit in-group preference and parents' total occupation scores Spearman's rho=. 13, *p*=. 08. Parents' total education scores showed no signs of a significant relationship with students' explicit in-group preferences (*p*=. 49). Explicit preference was significantly correlated with total scores on the Multi-group Ethnic Identity Measure, Spearman's rho= .36, *p*< .01. Scores on the belonging (Spearman's rho= .32, *p*< .01), ethnic identity (Spearman's rho= .35, *p*= .00), and ethnic behavior (Spearman's rho= .24, *p*< .01) subscales of the MEIM were positively associated with explicit preference scores. The higher student's reports of ethnic identity, ethnic behaviors and belonging to their in-group, the stronger their preference for black over white faces. There was a negative association between participants' other-group attitudes and explicit preferences, Spearman's rho = -.27, *p* <. .01 (*See Table 8 for correlations)*.

A multiple linear regression was conducted to examine which independent variables (parents' total occupation scores, scores on the MEIM, school type, and the interaction between school type and MEIM scores) significantly predicted students' explicit in-group preference. This model revealed that these factors accounted for a significant portion of the variance in participants explicit in-group preferences, R^2 = .18, F (4,119)= 6.60, *p*<. 01. The only factor in

the model that significantly predicted students' explicit preference was parents' total occupation level, b=. 09, t (119)=2.06, *p*=. 04.

College Students' Explicit Identity:

Data from 126 college students were used for this analysis. When averaged together, participants scored significantly above neutral, showing an explicit identification with the in-group, M=3.67, SD=. 71, t (125)=26.34, *p* <.01. This sample chose pictures of the black people more often than the pictures of the white people as individuals who were "most like them". There was no effect of year in school, F(4, 118)= .28, *p*=. 89. Independent sample t-tests revealed a non-significant trend of a difference in explicit preferences between individuals attending the heterogeneous versus the homogenous colleges, t(124)= 1.33, *p* =. 19. Although it was not significant, students from the homogeneous/all-black college (M=3.77, SD= .70) scored higher on the explicit identity measure than students from the heterogeneous college (M=3.60, SD= .72). A One-Way ANOVA analyzed whether there were differences in explicit identity between students who from K-12 attended either predominantly black, predominantly white, or mixed schools. Results revealed that there was a significant difference between groups, F (2,120)= 5.36, p=. 01. Post-hoc analyses confirmed that there was a significant difference between students who came from predominantly black schools (M=3.87, SD= .41) vs. those who came from predominantly white schools (M=3.36, SD=1.02) (p=. 01). There was also a significant difference in explicit identity scores between students who came from predominantly white schools (M=3.36, SD=1.02) versus those who came from mixed schools (M=3.73, SD=. 57) (p=. 05).

Bivariate correlations revealed trend of a relationship between explicit identity scores and parents' total education scores, Spearman's rho=-.14, *p* =.07. There was a significant

relationship between explicit identity scores and total scores on the Multi-group Ethnic Identity Measure, Spearman's rho= .27, p <. 01. There was a positive relationship between the belonging (Spearman's rho=.25, p <.01, ethnic identity (Spearman's rho=.23, p <.01), ethnic behavior (Spearman's rho=.24, p <.01) subscales of the MEIM. Also, there was a negative relationship between other-group attitudes and students' explicit preference (Spearman's rho= -.25, p <. 01) (*See Table 9 for correlations)*.

A multiple linear regression was conducted to examine which independent variables (parents' total education, school type, scores on the MEIM, and the interaction between school type and MEIM scores). The model significantly predicted explicit identity scores, R^2 = .09, F (4,120)= 3.03, p=. 02. The only variable that significantly predicted explicit identity scores was scores on the MEIM, b=. 49, t (120)=2.08, p = .04. We then computed a model with just scores on the MEIM as the predictor. This model was highly significant, R^2 = .09, F (1,124)= 12.11, p <. 01. Higher scores on the MEIM predicted higher explicit preference for black over white faces, b=. 42, t (124)=5.89, p <. 01.

Comparison of Younger Cohort and College Students' on Explicit Preferences and Identity:

Explicit Preferences:

Data from 216 participants were used in this analysis. One-sample, t-tests revealed a significant explicit in-group bias (67%), t ((214)= 12.06, p<. 01. When using the median-split (19 years old), there were 112 participants were in the college cohort and 104 in the younger cohort. There was a significant difference in explicit preference between the younger, (M=2.65, SD=1.27) and the older cohort (M=3.20, SD=. 94), t (214)= 3.59, p <.01. The same was true when using the mean age split, t(214)= 3.30, p <.01. There was a significant positive relationship between age and explicit preference Spearman's rho=.20, p <.01.

Explicit Identity:

A one-sample t-test revealed a significant explicit in-group identity (88%), t(215)= 25.38, p<.01. When using the median age split there was a significant difference in explicit identity between the younger group, (M=3.41, SD=1.04) and the older group (M=3.68, SD=. 73), t (214)= 2.19, p=. 030. The same difference was found when doing a mean age split, t(214)= 2.41, p= .02. There was also a significant positive relationship between age and explicit identity, Spearman's rho=.24, p =.02.

Relationship Between Implicit Preference and Implicit Identity:

When the entire sample was considered, only 60 members of the younger cohort met criteria for both implicit preference and implicit identity measure. There was a non-significant trend for a positive relationship between implicit preferences and implicit identity *D* scores, r (58)=. 23, p=. 08. The relationship between implicit preference and implicit identity was not significant for participants' in homogeneous schools (N=32), r(31)= .00, p =. 99, but it was significant for children in heterogeneous school (N=28), r(27)= .58, p < .01.

Data from 125 college students met criteria for this analysis. Results indicated a significant, positive correlation between implicit preferences and implicit identity, r (123)=. 36, p < .01. As in the younger cohort, this relationship was not significant for students in the all-black college group (N=53), r (51)=. 21, p =. 14, but was significant for students who attended racially mixed college (N=72), r (70)=. 44, p < . 01. This relationship was only significant for African American students who spent the majority of their K-12 schooling in racially heterogeneous schools, r (46)=. 47, p < .01.

Relationship Between Explicit Preference and Explicit Identity:

Data from 90 participants from the younger cohort were used for this analysis. There was a significant, positive correlation between explicit preference and explicit identity, r (88)=. 54, $p < .01$. In the younger cohort, this relationship was significant for students in predominantly black schools, r (46)=. 67, $p<.01$, and those in racially heterogeneous schools, r (40)= .40, $p< .01$. In college students, the relationship between explicit preferences and explicit identity was also significant, r (123)= .48, $p <. 01$. This relationship was observed in the HBCU, r (51)=. 52, $p < .01$ as well as in the PWI, r (71)= .44, $p <. 01$.

Relationships between Explicit and Implicit Measures:

For the younger cohort there were no significant relationships found between any explicit and implicit measures. In contrast, significant relationships were found between implicit and explicit measures for college students. There was a significant positive relationship between explicit preference and implicit preference r(123) =. 27, $p < .01$. There was also a significant positive relationship between explicit identity and implicit preferences, r(123)=. 23, $p < .01$. These relationships were not significant for students from predominantly black schools, but were significant for students in racially mixed schools ($p<.01$). As discussed earlier in the text there were also significant relationships between scores on the MEIM, a self-report measure and students' scores on implicit measures.

Differences Between College Students Attitudes on the MEIM based on school type:

There were significant differences between the self-reported racial attitudes of students from the all Black college and students from the racially heterogeneous school. Students at the homogeneous/all-black college (M=3.40, SD=. 41) scored significantly higher on the MEIM than students in the racially heterogeneous school (M=3.12, SD=. 54) t (124)=3.11, $p<.01$.

HBCU student had a stronger sense of belonging (124)= 2.75, *p*=. 01, ethnic identity, t (124)=1.97, *p*=. 05 and more ethnic behaviors, t (124)=4.87, *p* <. 01, than students in racially heterogeneous schools. Students from the all Black college had significantly lower other group attitudes than students from racially heterogeneous schools , t (124)= -4.58, *p* <. 01 (*See Table 10*).

Discussion

The main goal of this study was to identify the factors that are associated with how positive African Americans' preferences are about their in-group. After a thorough examination of the literature, we examined factors that theory and existing empirical data suggest might predict whether African Americans had positive or negative in-group preferences. These factors included strength of parents' and college students' racial identity, frequency of specific messages parents sent to their children about race, socio-economic status and school racial make-up. In general, we found evidence that the messages African Americans receive about their in-group serve as predictors of preferences and identity at both the explicit and implicit levels. Our hypotheses were supported with participants exhibiting an explicit in-group bias. Predictions were also confirmed with a lack of an implicit in-group bias observed in the younger cohort. Our prediction was not upheld in the older, college student group who not only exhibited an explicit in-group bias, but surprisingly showed a significant implicit in-group bias.

African Americans In-group Preferences:

On the explicit level, we confirmed that African Americans in general have a preference for black faces over white faces. The data suggest that this preference develops by elementary school and increases in strength by college. The explicit in-group bias observed in this sample may be explained by the fact that since the Civil Rights and Black Power Movements it has

become more socially accepted for African Americans to display positive in-group preferences on the explicit level (i.e. "I'm black and I'm proud"). In fact, African Americans face pressures not to identify with the out-group, which can result in them being deemed as "identifying with the oppressor" or "Acting White" (Ogbu, 2004).

The explicit in-group preference observed in our sample is markedly different from the lack of an in-group bias observed in younger, preschool aged African Americans (Clark & Clark, 1947; Gibson-Wallace, Robbins, & Rochat, 2013). The explicit in-group bias found in the current study had a positive relationship with age, which is consistent with previous research showing that as African Americans get older they become more explicitly pro-black (Branch & Newcombe, 1986, Gibson-Wallace, Robbins, & Rochat, in press). The lack of explicit in-group preference during the early/preschool years for African Americans may be based on group social status while with age, explicit racial preferences may be determined by knowledge of social norms, prejudice and racism, as well as the types of racial socialization messages received. This could also be a product of with age comes more of an understanding of racism and higher frequency of receiving ethnic/racial socialization messages (Phinney, 1989; Hughes, et al., 2006).

As discussed in the introduction, there have been suggestions that European Americans anti-black attitudes may be explained by their lack of familiarity with African Americans (Olson & Fazio, 2004). Given this account for IAT results, it can therefore be suggested that African Americans who are more familiar with their in-group would have stronger implicit in-group preferences than those who are less familiar with members of their own group. Our data speak to the issue of familiarity by observing if there were differences in implicit in-group preferences of African American based on the racial composition of the environment they spend the majority of

their social life in, school. Although we found no significant differences in racial preferences between African Americans from homogeneous versus heterogeneous schools, we did find trends of differences. These significant differences were totally erased when we considered factors such as the messages received from parents about race (in the younger cohort), the strength of ethnic identity (in the older cohort) and how these variables interacted with school type. This suggests that regardless of how familiar, or how much time spent with members of their in-group; this does not totally explain the variance in African Americans' implicit racial preferences.

On the implicit level, the results clarify and extend previous research that has shown that African American children do not show an implicit positive bias for their in-group in comparison to the white out-group. Results from the present study further highlight that the social status of a group can result in a lack of a positive in-group bias in minority or low status children (Baron & Banaji, 2009; Newheiser & Olson, 2012). This study confirms previous studies conducted on children of Hispanic American descent as well as native Japanese and native Indian children. When the comparison out-group is of higher status, there is a general preference among children from various cultures to prefer the group that is of higher status over their in-group. Interestingly, in studies that have found this relationship between social status of group and proclivity to prefer or not prefer the in-group, skin color is an important factor. In Dunham, et al., (2007) study with Hispanic children and adults' implicit preferences, there was an in-group preference when the comparison group was of darker complexion (black), but this in-group bias vanished when the comparison group was of a lighter complexion (white). The same results of a preference for the lighter group was found among native Japanese when comparing their group to a black versus a white out-group (Dunham, et al., 2006), as well as when examining the implicit preferences of

native Indians from the various groups of the Hindu caste system (Dunham, Srinivasan, Dotsch, Barner, 2014). The Indian caste system also has divisions based on how light or dark the complexion of the skin is. Since British colonialism, the caste system has been defined in terms of skin color. Dunham, et al., (2014) study of the native Indians found that while implicit preferences based on the groups from the caste system was similar to what has been found in studies on race with darker groups having a preference for lighter groups, their results showed something different when comparing groups that were not as rooted in skin color (e.g., religious groups). Taken together, these studies and our data suggest that a preference for lighter groups that has been historically connected to social status throughout the world and has an impact on whether or not we will see different groups exhibiting in-group or out-group implicit preferences. While in America, this is known as race, across the higher social status of groups of lighter complexion than those of darker complexion can be observed (Norwood, 2014).

Interestingly, we observed a significant implicit in-group bias in the college student sample. This bias was particularly strong in African American students in the all black college and those who attended predominantly black schools from grades K-12. This contradicts previous research that has reported a lack of an implicit in-group bias in African Americans (Richeson, Trawalter, & Shelton, 2005; Nosek, et al., 2002, Livingston, 2002, Ashburn-Nardo, Knowles &,Monteith, 2003). The current research took into account social factors such as school type, which has not been considered by previous studies when examining African Americans.

The current study was conducted in an American city with a unique African American population. Atlanta is often called the "Black Mecca" due to the fact that it has historically been the center of black wealth, political power and culture. In terms of socio-economic status, Atlanta boasts the largest number of African American millionaires in the 21st century (Bullard,

2007). Atlanta also has three Historically Black Colleges and Universities (HBCU) with a large population of African Americans who have achieved high academic and social status. In contrast, Atlanta also has a considerably large portion of African Americans that live below the poverty line. The HBCU college that students attended in this study is in one of the most impoverished neighborhoods in Atlanta. Although students in this sample have the opportunity to see African Americans from both sides of the social status spectrum, they were from mid-high SES and were working toward obtain a college degree. The implicit in-group bias observed may be a product of the fact that this sample resides and are immersed in a city/culture with members of the racial in-group who are mid-high social status and that contradict the stereotype about their social group (e.g., all black academic environment). In our future studies, we intend to collect more data from African Americans from the lower end of the social status spectrum. Our data suggests, particularly in the college sample, that having the opportunity to regularly see African Americans in high social status positions (e.g., academia) may increase in-group positivity. Even though these students were attending college in a very impoverished area, overall they were immersed in their education and around in-group members from middle-high socio-economic status.

In-group Identity:

The study conducted by Dunham, Baron and Banaji (2007) is the only published experiment that utilized the modified version of the IAT to measure implicit racial identity. They examined the strength of Hispanic American children and adults' implicit identity when comparing their in-group to both African American and European American faces. Results revealed that Hispanic children only showed an implicit in-group identity when the comparison group was African American but not when the comparison group was white. In contrast,

Hispanic American adults showed an implicit in-group identity with both groups, demonstrating that the development of an implicit in-group identity increases with age. The present study yielded findings consistent with a similar developmental trend in another minority group. Both children and adults in our study showed an explicit and implicit identification with black faces in comparison to white faces. With age, the strength of this in-group identity increased on both the implicit and explicit level. This relationship may be explained by evidence that has shown with age comes more racial socialization and understanding of racism (Branch & Newcombe, 1986).

When comparing the white out-group to the in-group, an implicit in-group identity seems to develop earlier in our African American sample than in Dunham, et al.'s (2008) Hispanic American sample, because our data showed an implicit in-group identity in both children and adults. The early development of an implicit in-group identity seen in African American in comparison to Hispanic American children may be due to the fact that racial difference is more salient when comparing black and white faces than when comparing Hispanic and white faces. This could be purely due to the fact that phenotypically, Hispanic and white faces are closer in skin complexion than black and white faces. This would explain why the Hispanic American children did not implicitly identify with their in-group when the comparison group was white, but did when it was black. Future research should further examine how the saliency of group differences impacts individuals' implicit identification with one group over another group.

Previous research using different implicit measures have found that there is a strong tendency to have fast response times when associating characteristics that are representative of the in-group with the self (Smith & Henry, 1996; Smith, Coats & Wallings, 1999; Coats, Smith, Claypool & Banner, 2000). Devos and Banaji (2003) found that Americans had a faster reaction time to American symbols with in-group words (e.g., "we", "ourselves") than with out-group

words (e.g., “they”, “other”). There has been research that has examined implicit gender identity that has shown that both children (Cvenek, Meltzoff and Greenwald, 2011) as well as in adults (Nosek, Banaji, and Greenwald, 2002) and its relationship with their implicit gender stereotypes and math self-concept. Similar to the implicit racial in-group identity observed in this study, results in Nosek, et al., (2002) study revealed that in general, children implicitly identified with their gender in-group. Taken together, these studies and our data suggest that an implicit in-group identity develops in the elementary school years across multiple social categories.

The Development of Implicit Preferences in African Americans:

Another goal of this study was to better understand how implicit preferences are learned in a minority group. Previous research has claimed that the implicit associative system involves a slow process in which we internalize associations (Greenwald & Banaji, 1995; Smith & DeCoster, 2000). In contrast, there have been arguments that have challenged a slow learning system by showing that there are similar levels of implicit racial bias in European American children as observed in European American adults (Baron and Banaji, 2006). Dunham, Baron, and Banaji (2008) suggested that a slow learning model may better explain how children from negatively stereotyped groups form knowledge about being members of low status groups. In general, we confirmed no relationship with age and IAT *D* scores, but upon further investigation we observed a relationship between age and pro-black implicit preferences. Our research seems to suggest that in African Americans, the development of a white bias may happen quickly and remain stable throughout the lifespan, but the development of a positive bias for African Americans may develop slowly and get stronger throughout the life span. The data supports this because we found that when comparing children and adults that have a positive in-group/black bias that the strength of this bias had a positive relationship with age. In contrast, children and

adults who have a positive out-group/white bias look similar to European Americans whose implicit preferences scores do not relate to age. The lack of relationship with age found in this study among those who had an implicit white preference is similar to what has been found in European American children and young adults with an implicit white preference. This means that the development of a preference that is in alignment with the cultural knowledge pertaining to the social status of groups may develop early and remain stable throughout the life span. The development of preferences that are not in alignment with the cultural knowledge about group status may require the reworking of these intuitions. If the time and effort is put into providing knowledge and experiences that are counter-stereotypical and not in alignment with society's social hierarchy, a positive in-group/black preference may develop and increase in strength over the life span. The current study suggests that both a slow and fast implicit learning model can be supported depending on the direction of the bias.

Relationship between Implicits and Explicits:

This study specifically contributes to the field by examining the relationship between implicit and explicit measures in a minority sample. For both children and adults, there was a positive relationship between explicit preference and explicit identity. The relationship found between implicit measures is consistent with theories of cognitive consistency such as Social Identity Theory (Tajfel & Turner, 1986) and Balanced Identity Theory (Greenwald, et al., 2002; Cvencek, Greenwald, & Meltzoff, 2012). Both theories suggest that there is a connection among an individual's self esteem, group preferences and identity. The current study's data support Social Identity Theory by showing that there is a congruency between preference and identity at the explicit level. As mentioned in the introduction, the research supporting Social Identity Theory has mainly used explicit measures. The significant relationship between explicit

preference and identity found in this study suggest that the more strongly one identifies with pictures of people of their same race, the stronger one's expression of an explicit preference for faces of members of one's racial in-group. Similarly on the implicit level, there was a relationship between how fast they reacted to faces of the same race with words representative of the self and how fast they reacted to same race faces with positive words. This finding is consistent with Balanced Identity Theory, which suggests that there is a relationship between implicit in-group identity and preferences that have a positive in-group valence. Even though we did not examine self-esteem, previous research has found significant associations between self-esteem, in-group preferences and in-group identity (Cvencek, Meltzoff, & Greenwald, 2011;Dunham, Baron & Banaji, 2007). Future research should include a measurement of self-esteem because its relationship with implicit in-group positivity has not yet been thoroughly examined developmentally in African American's. This future investigation is important because there is evidence that self-esteem is associated with the racial identity of African Americans, Hispanic Americans and Asian Americans, but they are unrelated in European Americans (Phinney; 1992 Phinney & Chavira; 1992).

These studies combined with our study suggest implicit cognitive consistency, as well as implicit and explicit cognitive consistency is formed in order to maintain a positive self-concept in minorities, specifically those in racially heterogeneous environments. In contrast, explicit preference and explicit identity were only associated in participants from the homogenous schools. Cognitive consistency, on the explicit level in heterogeneous environments may not be evident because the salience of the white out-group does not call for cognitive consistency. Identifying and preference for the white out-group may not violate social norms in the heterogeneous environment as much as in the homogenous/all-black environment. It is more

socially acceptable for African Americans to identify with and act like members of the out-group if they are in contact with them.

Since achieving balance between cognitions is a higher-order process it makes sense that when averaging all children together we only found a statistical trend for consistency in children's implicit preferences and implicit identity. Interestingly, this relationship was not significant for African American children in homogenous schools, but it was significant for children in heterogeneous schools. This suggests that cognitive consistency between implicit cognitions may be a product of being in social environments with multiple groups. This relationship was not observed in social environments in which children that have no comparison out-group. It is not until young-adulthood that this relationship was found to be significant. Similar to children, the relationship between implicit preference and implicit identity was only significant in students in racially heterogeneous colleges. This relationship was strongest for college students who spent the majority of their educational life before college in schools with other ethnic-groups besides their own. This highlights the impact of having a salient out-group in the social environment on the balance of African Americans implicit racial preferences and identity.

Similar to studies examining European American children, African American children did not show consistency between their explicit and implicit in-group preferences (Baron & Banaji, 2006; Dunham, Baron, & Banaji, 2008). In contrast, cognitive consistency was found in this African American adult sample. Implicit preferences were positively related to both explicit preference and explicit identity, which were measured using both a picture preference task and the Multi-group Ethnic Identity Measure. While studies have suggested that implicit and explicit preferences are not related (particularly in European Americans; Devine,1989; Greenwald &

Banaji, 1995; Baron & Banaji, 2006), the current study supports research that has observed a relationship between explicit and implicit preference measures (Nosek, Banaji, & Greenwald, 2002). This relationship between explicit and implicit racial preferences in African Americans was also found in the Ashburn-Nardo, Knowles, and Monteith (2003) study in which African Americans with lower positive implicit in-group biases were less likely than those with high positive in-group bias to have an explicit black preference.

The Impact of Parents' Racial Attitudes, Specific Racial Socialization Messages and SES on their Children's Racial Preferences and Identity:

The only racial attitude of parents that was significantly related to their children's performance was at the level of explicit identity. The more parents agreed with statements such as "*I like meeting and getting to know people from ethnic groups other than my own"* and "*I enjoy being around people from ethnic groups other than my own",* the lower their children's explicit in-group identity. This confirms previous research that has shown that parents' out-group attitudes are related to their children's racial preferences (Verkuyten, 2002, Sinclair, Dunn & Lowery, 2005).

Since there were no differences between school types and minimal relationships were found between parents' scores on the MEIM and children's racial preferences it can be concluded that these factors alone may not be the driving force behind African Americans racial preferences. It was the specific messages about race that children received and how these messages interacted with racial composition of their schools that was predictive of children's explicit and implicit preferences/identity. Interestingly, there was not a significant relationship between the MEIM and any subscales on the Hughes and Chen Racial Socialization. The only significant relationship that was found was between parents' personal ethnic behaviors on the MEIM and frequency of racial socialization messages. This makes sense because these are the

only subscales that had similar questions. For example, the ethnic behaviors subscale of the MEIM asked parents how strongly they agree with the statement, "*I participate in cultural practices of my own group"* and the Hughes and Chen racial socialization scale asked parents to estimate how often have "*Taken child to black cultural events"* in the last 12 months.

There has been very little research that has examined how parents' racial socialization messages impacts children's implicit racial preferences. We broke down racial socialization messages by two types: 1) preparation for racism/bias and 2) racial history and pride socialization. Interestingly, preparation for bias had a different relationship with children's racial preferences depending whether it was at the implicit or explicit level. Explicitly, these types of messages are positively associated with in-group positivity. Suggesting that receiving messages that the out-group is valued more in society than the in-group and that they may encounter prejudice results in stronger explicit in-group preferences. Messages preparing children for bias may increase their explicit preferences because they are absorbing information that the out-group (white people) are a threat and it is through socialization with them that an individual experiences racism. Our research suggests that receiving these types of messages may increase African Americans bias towards their own group. The relationship between parents' messages and children's explicit preferences confirms previous literature that has shown children whose parents teach them about race and racism have more favorable in-group biases (Knight, Bernal, Garza, Cota & Ocampo, 1993; Marshall, 1995; Stevenson, 1995).

Preparation for bias messages has the opposite effect on the implicit level. Receiving these messages from parents portrays the out-group as a threat, while simultaneously highlighting the lower social status of the in-group, which may explain why they are associated with lower implicit in-group positivity. This confirms adult data that has shown that perceived

negativity of the group has a positive relationship with explicit in-group bias, but a negative relationship with implicit in-group biases (Livingston, 2002). The relationship we observed between our sample of African American parents and their children also confirms Sinclair, Dunn, and Lowery (2005) study which found that parents' racial attitudes, specifically the extent to which parents showed prejudice against out-groups was significantly related to children's implicit racial preferences. Their experiment was conducted on European American children and parents in the Midwest and focused on parents' attitudes towards African Americans. Taken together, these studies suggest that in both African American and European American children, parents' attitudes and messages about racism (e.g., the cultural knowledge about the historical and current negative treatment of African Americans) has an impact on their implicit cognitions about their in-group.

Preparation for bias yielded different implicit preferences depending on school type. For those children in all black schools, the more parents prepared their child for racial bias the lower that child's positive implicit in-group bias. Inversely, the more children in heterogeneous schools were prepared for racial bias the higher their positive implicit in-group bias. This suggests that preparation for bias may have different consequences depending on whether or not there is a salient out-group for minority children to compare themselves to on a regular basis such as in the school environment. Without a salient out-group in the social environment preparation for bias may lead minority children in the lower status group to have a more positive bias for the higher status out-group because they are not gaining any information via contact with that group. Without this contact children may be solely learning through the preparation for bias messages that their group is of lower social status. More research is needed in order to better understand this interaction. These findings suggest that on the implicit level, being in segregated

environments along with receiving messages that highlight African Americans at the lower end of the social status spectrum increase pro-white preferences. People in heterogeneous schools have multiple groups to assist in the exploration of their racial identities, and this in combination with preparing the child to deal/cope with racism seems to have a positive impact on implicit in-group racial preferences. Previous research has found that the more children explored their racial identities, the more parents prepared them for bias (Hughes & Johnson, 2001).

Even though we see relationships between parents' racial socialization messages and their children's preferences and identification, by no means are we suggesting that they are the starting point of the development of racial preferences. Our research suggests that these preferences are already formed as early as 5 years old when children are very new to the formal school social environment. This is in alignment with previous studies suggesting that differentiation between racial groups is possible even for the infant, but they do not begin to form meaning about these groups until age 3 or 4. By the time children are the youngest age in this study, they are well aware of the negative and positive stereotypes and there is meaning behind each social group.

There has been no research examining the individual differences of African American children's implicit preferences or identity based on socio-demographic factors. The current study found a positive relationship between parents SES (occupation + education level) and the implicit in-group positivity of their children. A positive relationship was also found between parents' SES and college students' explicit in-group positivity. This suggests that having the opportunity to see their parents in social positions that are counter-stereotypical, may have a positive impact on African Americans implicit in-group positivity. This may be a finding that is representative of African Americans from Atlanta, GA where there is a substantially large

African American middle class and people are more likely to have the opportunity to associate being African American with higher social status than in other regions of the country. Further research is needed to see if this relationship exists in other regions where African Americans are not as likely to be seen in high social status occupations. Socio-economic variables had the opposite relationship with identity. The higher parents' occupation level, the lower children's implicit in-group/black identity. This was also supported by the data showing a negative relationship between SES variables and college students' explicit identity. These findings support previous studies that have shown that African Americans who come from families with higher levels of income are more likely to have a pro-white identity than African Americans from families with lower levels of income (Parham & Williams, 1993). This suggests that on the implicit level, children whose parents deviate from the stereotype may see themselves as different from their in-group and therefore show less of an in-group identity. This data also supports existing evidence that African American parents from mid-high SES are more likely to utilize mainstream racial socialization messages that emphasize assimilation and integration with the white, dominant group (Thornton, et al., 1990, Thornton, 1997). Future research should further examine the different relationships between SES and implicit versus explicit in-group preferences, as well as in-group identity in African Americans. Another next step would also be to further investigate the relationship between mothers' versus fathers' educational and occupational attainment, and how they individually contribute to the variance in African Americans racial attitudes. Our data would suggest that on the implicit level and particularly with older African American's their fathers' education status is negatively related to their degree of positivity towards the in-group. In contrast, our studies found that on the explicit level and

particularly with younger African Americans, mothers' educational and occupational level is positively related to their degree of in-group positivity.

The present study is the first to attempt to explain the variance in the relative positive or negative strength of implicit in-group preferences of African-Americans. African Americans with negative in-group preferences relative to the white/out-group can be described as accepting of the socio-political system in which their group has the least power and resources. This acceptance results in valuing the dominant/white group more than the subordinate in-group. The current study suggests that the degree to which African Americans value the white out-group more than their in-group can be predicted by the types of messages they receive about the social status of their group. This is in line with Social Dominance Theory which allows for the formation of predictions about when a person will accept versus reject systems that classify one group as superior to another as did many of the participants in this study. Future research should continue to examine under what conditions members of negatively stereotyped groups reject society's depiction of their group. Next steps in this research should also include investigating the behavioral manifestations of African Americans developing positive versus negative in-group preferences.

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Appendix

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Mother's Education	84	7.00	.00	7.00	5.7619	1.29521
Father's Education	84	7.00	.00	7.00	4.7500	1.92557
Parent's Total Education	84	5.00	2.00	7.00	5.3452	1.27765
Mother's Occupation	82	9.00	.00	9.00	6.5000	2.09791
Father's Occupation	82	9.00	.00	9.00	5.3415	2.76762
Parent's Total Occupation	82	8.00	1.00	9.00	6.0122	1.79501
Parent's Total SES	82	11.00	4.50	15.50	11.3780	2.70637
Valid N (listwise)	82					

Table 1: Parents' scores on the Hollingshead Four-Factor Socio-economic Scale

	N	Minimum	Maximum	Mean	Std. Deviation
Mother's Education	125	3.00	7.00	5.8160	.90147
Father's Education	125	.00	7.00	5.2080	1.66702
Parent's Total Education	125	2.50	7.00	5.5240	1.03537
Mother's Occupation	124	.00	9.00	6.1855	2.22830
Father's Occupation	124	.00	9.00	5.7258	2.77720
Parent's Total Occupation	124	.00	10.00	6.0282	1.93523
Parent's Total SES	124	3.00	16.00	11.5315	2.61171
Valid N (listwise)	124				

Table 2: College students' scores on the Hollingshead Four-Factor Socio-economic Scale

Dependent Measure	Correlation Statistic	*p*-value
Parents' Total SES Scores	Spearman's rho= .21	.04*
Parents' Total Occupation Scores	Spearman's rho= .23	.03*
Parents' Other-group Attitudes Scores	Spearman's rho= -.24	.02*
Parents' Preparation for Bias Messages Scores	Pearson's r= -.14	.13
Parents' Preparation for Bias Messages Scores (for children in homogenous/all-black schools	Pearson's r= -.38	.01*
Parents' Preparation for Bias Messages Scores (for children in heterogeneous/mixed schools	Pearson's r= .18	.15

Table 3: Correlations with Younger Cohorts' Implicit Attitude D Scores
* significant, p<. 05

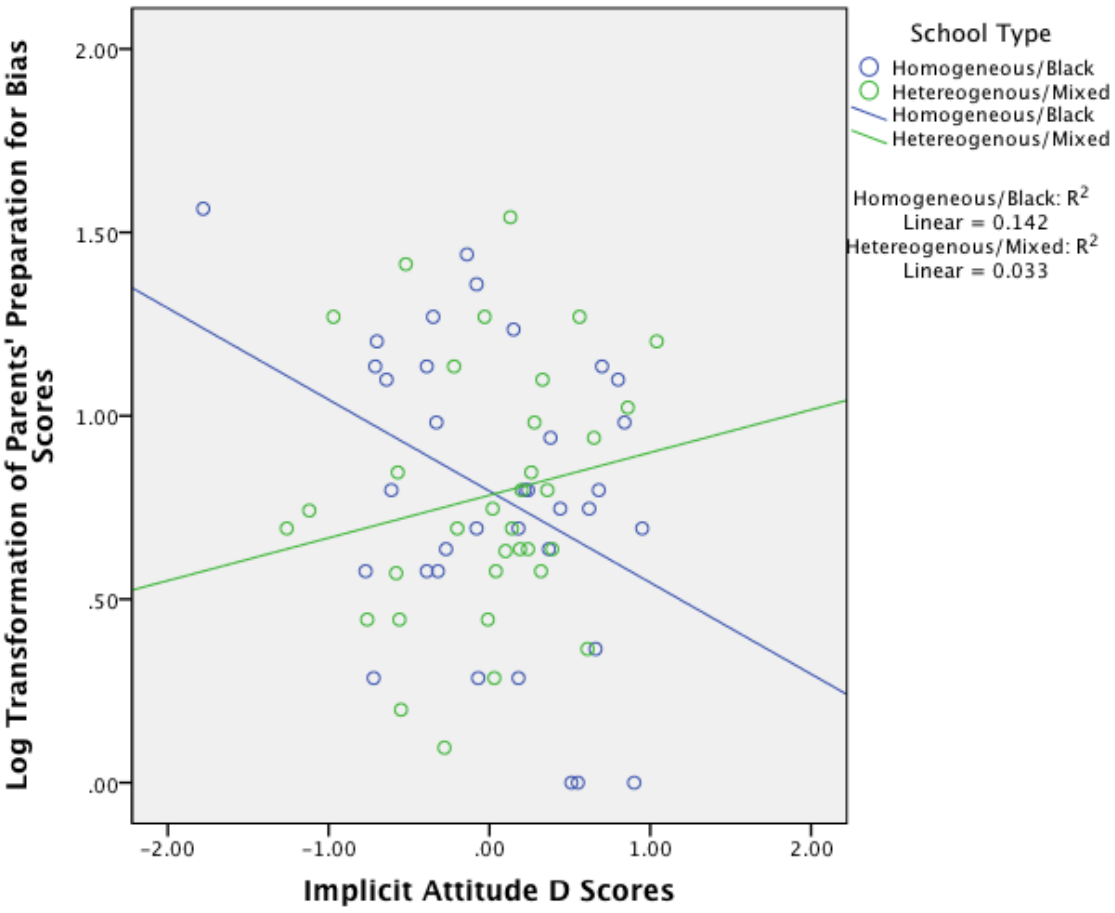

Figure 1: The relationship between parents' scores Hughes and Chen Racial Socialization Preparation for Bias Subscale and the younger cohorts' implicit preferences by school type

Dependent Measure	Correlation Statistic	*p-value*
Parents' Total Occupation Score	Spearman's rho= -.19	.07*
Parents' Total SES scores	Spearman's rho= -.17	.10
Parents' Preparation for Bias Messages Scores	Pearson's r= .20	.07*
Parents' Racial Socialization Scores	Spearman's rho= .19	.08*

Table 4: Correlations with Younger Cohorts' Implicit Identity D-scores
* $p < .10$

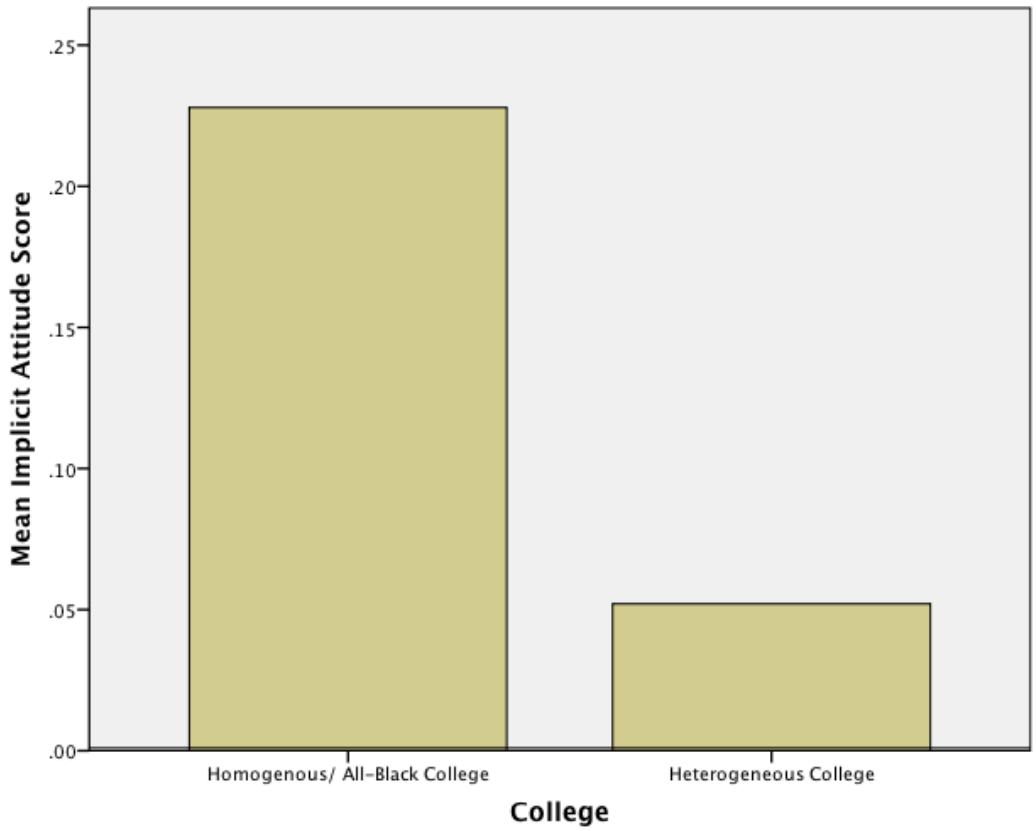

Figure 2: Implicit preferences score by college type

Dependent Measure	Correlation Statistic	*p-value*
Parents' Total Education Scores	Spearman's rho= -.15	.05*
Fathers' Education Score	Spearman's rho= -.20	.02*
Students' Total Scores on the Other-group Attitudes Subscale	Spearman's rho= - .13	.08
Students' Total Scores on the Other-group Attitude Subscale (participants in the homogeneous/all-black college)	Spearman's rho= .06	.35
Students' Total Scores on the Other-group Attitude Subscales	Spearman's rho= .20	.05*

Table 5: Correlation with College Students' IAT *D* Scores
*$p \leq .05$

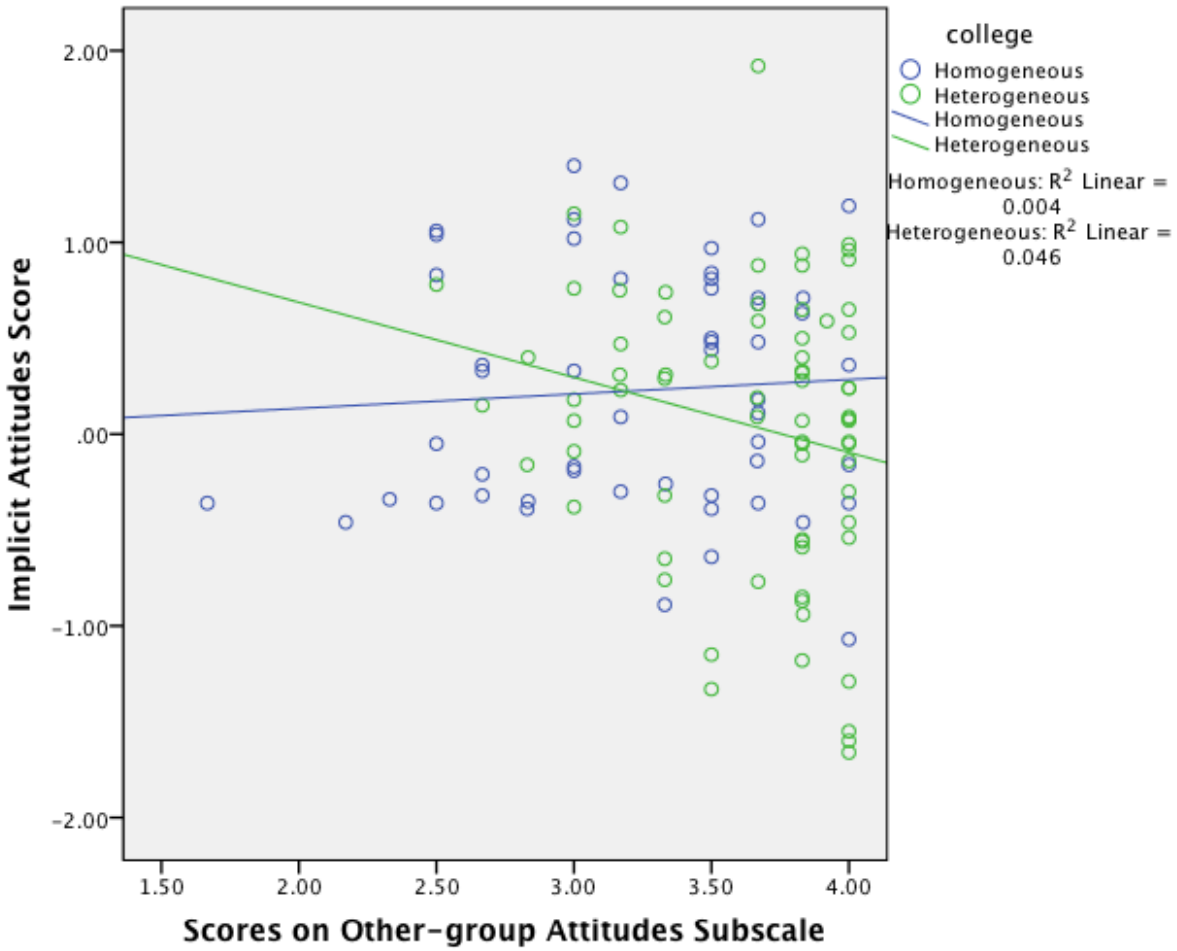

Figure 3: Interaction between college type and other-group attitudes on IAT *D* scores

Dependent Measure	Correlation Statistic	*P-value*
Students' Total MEIM Scores	Spearman's rho= .23	.004**
Students' Total Scores on the Belonging Subscale	Spearman's rho= .22	.007**
Students' Total Scores on the Other-group Attitude Subscale	Spearman's rho= -.20	.011*

Table 6: Correlations with College Students' Implicit Identity D Scores

** p < .05*

*** p< .01*

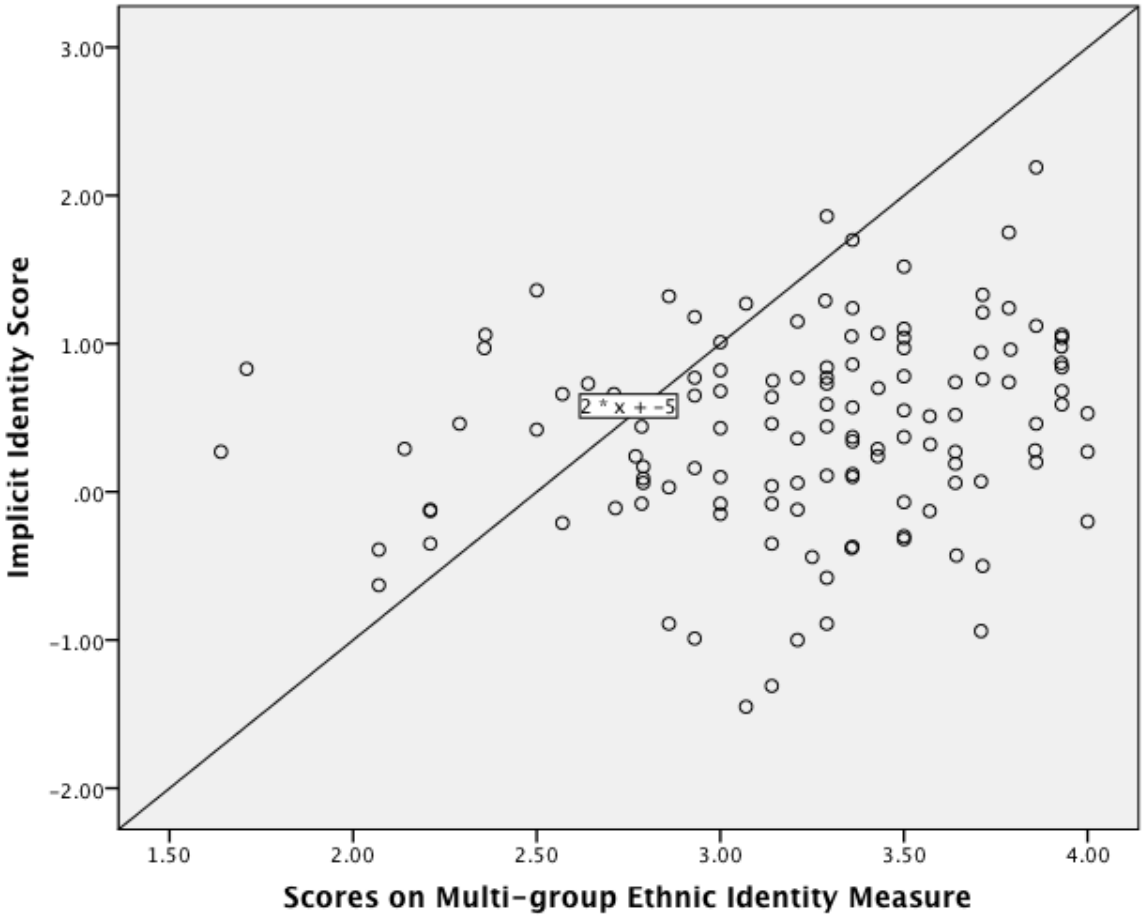

Figure 4: Relationship between college student's scores on the Multi-group Ethnic Identity Measure and implicit identity

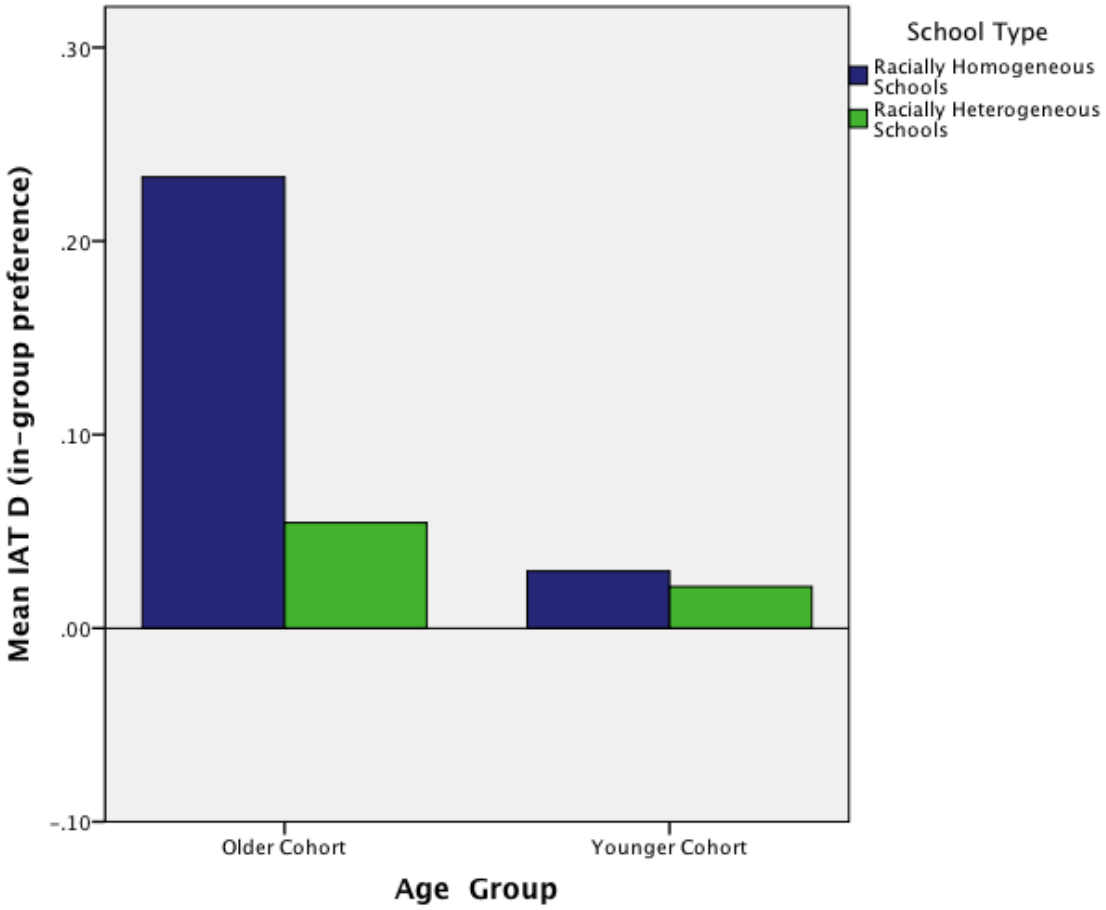

Figure 5: Comparison between school types implicit preference *D* scores each age group

Dependent Measure	Correlation Statistic	*p-value*
Mothers' Total Education Scores	Spearman's rho= .21	.03*
Mothers' Total Occupation Score	Spearman's rho = .22	.02*
Parents' Total Scores on the Other-group Attitude Subscale	Spearman's rho= -.21	.03*
Parents' Racial Socialization Scores	Spearman's rho= .10	.18
Parents' Racial Socialization Scores (children in homogenous/all-black schools)	Spearman's rho=. 27	.04*
Parents' Racial Socialization Scores (children in heterogeneous/mixed schools)	Spearman's rho=-.08	.31

Table 7: Correlations with Younger Cohorts' Explicit Identity Scores
* $p < .05$

Dependent Measure	Correlation Statistic	*p-value*
Parents' Total SES Scores	Spearman's rho= .13	.08*
Parents' Total Occupation Scores	Spearman's rho= .13	.08*
Students' Total MEIM Scores	Spearman's rho= .36	.000**
Students' Scores on the Belonging Subscale	Spearman's rho= .32	.000**
Students' Scores on the Ethnic Identity Subscale	Spearman's rho = .35	.000**
Students' Scores on the Ethnic Behaviors Subscale	Spearman's rho = .24	.003**
Students' Scores on the Other-group Attitudes Subscale	Spearman's rho= -.27	.001**

Table 8: Correlations with College Students' Explicit Preference Scores
* $p < .10$
** $p < .01$

Dependent Measure	Correlation Statistic	*p-value*
Parents' Total Education Scores	Spearman's rho= -.14	.07*
Students' Total MEIM Scores	Spearman's rho= .27	.001**
Students' Total Scores on the Belonging Subscale	Spearman's rho= .25	.003**
Students' Scores on the Ethnic Identity Subscale	Spearman's rho= .23	.004**
Students' Scores on the Ethnic Behaviors Subscale	Spearman's rho =. 24	.003**
Students' Scores on the Other-group Attitudes Subscale	Spearman's rho= -.25	.002**

Table 9: Correlation with College Students Explicit Identity Scores

* $p <. 10$

** $p < .01$

MEIM	Spelman	Emory
Total Score *	M=3.40 ,SD= .41	M= 3.12, SD=.53
Belonging *	M= 3.53, SD=.42	M=3.37, SD= .60
Ethnic Behaviors *	M=3.31, SD= .54	M=2.66, SD= .83
Other Group *	M=3.24, SD= .56	M=3.63, SD= .40

Table 10: Differences between colleges on the MEIM

* $p<.01$

Measures

Demographics Questionnaire (parents)

What is your child's gender? M/F

What city/zip code has your child lived in the longest?

My child has attended mostly _____schools (Please circle best answer)

a) **Predominantly African American schools**
b) **Predominantly White schools**
c) **Racially mixed schools (very diverse schools)**

Demographics Questionnaire (students)

What is your gender? M/F

What city/zip code have you lived in the longest?

I have attended mostly _____schools prior to college (Please circle best answer)

a) **Predominantly African American schools**
b) **Predominantly White schools**
c) **Racially mixed schools (very diverse schools)**

Hollingshead Four-Factor (Socio-economic Status Measure)

Please place an X in the appropriate box for the parents of the child (for child participants) or for your parents (college student participants).

Level of School Completed	Mother	Father
Less than 7th Grade		
Junior High (up to 9th grade)		
Partial High School (10th or 11th grade)		
Partial College (at least 1 year)		
College Education		
Graduate Degree		

Occupation	Mother	Father
Farm laborer, day laborer		
Unskilled service, service worker		
Machine operator, semiskilled worker		
Skilled manual worker, craftsman, police and fire services, enlisted military and non-commissioned officers		
Clerical/sales, small farm owner		
Technicians, semiprofessional, supervisor, office manager		
Small business owner, farm owner, teacher, low level manager, salaried worker		
Mid-level manager or professional (for example: architect, engineer, accountant, attorney_ mid-sized business owner, military officer		
Senior manager or professional (for example: physician, college professor, minister) owner or CEO of		

large business		

Multi-group Ethnic Identity Measure
(completed by college students and parents of child participants)

In this country, people come from a lot of different cultures and there are many different words to describe the different backgrounds or *ethnic groups* that people come from. Some examples of the names are Mexican-American, Hispanic , Black, Asian-American, and White. Every person is born into an ethnic group, or sometimes into two groups, but people differ on how important their ethnicity is to them, how they feel about it, and how much their behavior is affected by it. These questions are about your ethnicity or your ethnic group and how you feel about it or react to it.

Use the numbers given below to indicate how much you agree or disagree with each statement

4: Strongly agree 3: Somewhat agree 2. Somewhat disagree 1. Strongly disagree

1. I have spent time trying to find out more about my own ethnic group, such as its history, traditions and customs.
2. I am active in organization or social groups that include mostly members of my own ethnic group
3. I have a clear sense of my ethnic background and what it means to me.
4. I like meeting and getting to know people from ethnic groups other than my own.
5. I think a lot about how my life will be affected by my ethnic group membership.
6. I am happy that I am a member of the group I belong to.
7. I sometimes feel it would be better if different ethnic groups didn't mix together.
8. I am not very clear about the role of my ethnicity in my life.
9. I often spend time with people from ethnic groups other than my own.
10. I really have not spent much time trying to learn about the culture and history of my ethnic group.
11. I have a strong sense of belonging to my own ethnic group.
12. I understand pretty well what my ethnic group membership means to me, in terms of how to relate to my own group and other groups.

13. In order to learn more about my ethnic backgrounds, I have often talked to other people about my ethnic group.

14. I have a lot of pride in my ethnic group and its accomplishments.

15. I don't try to become friends with people from groups other than my own group.

16. I participate in cultural practices of my own group.

17. I am involved in activities with people from other ethnic groups.

18. I feel a strong attachment towards my own ethnic group.

19. I enjoy being around people from ethnic groups other than my own.

20. I feel good about my cultural or ethnic background.

Hughes and Chen Racial Socialization Scale
(Completed by parents all child participants)

Instructions: Please estimate how many times you have engaged in the following behaviors over the last 12 months on a scale of **1 (never)** to **5(more than seven times).**

1. **Never**
2. **Once or twice**
3. **3 to 5 times**
4. **6-10 times**
5. **More than 10 times**

1. Talked to child about racism.
2. Told child people might treat them badly because of their race
3. Explained to child something they saw on TV that shoed poor treatment of African Americans.
4. Told child people might try to limit them because of their race.
5. Talked to child about the fight for equality among African Americans.
6. Talked to child about things they mis-learned in school.
7. Told child he/she must be better than White kids to get the same rewards.
8. Talked about race with someone else when child could hear.
9. Talk to child about racial differences in features.
10. Read child Black history books
11. Read child Black story books
12. Taken child to Black cultural events
13. Done things to celebrate Black history
14. Taken child to get traditionally lack hairstyles (braids, locs, etc.)
15. Told child to keep distance from White people.
16. Told child not to trust White people.