

Race and the Workforce: Occupational Status, Aspirations, and Stereotyping Among African American Children

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This study examined whether African American children's perceptions of occupational status and their own vocational interests are affected by racial segregation of the workforce. Children ($N = 92$) rated familiar occupations with respect to status, desirability, and stereotyping. Children also rated novel jobs that had been depicted with African Americans, European Americans, or both African and European Americans. As predicted, for familiar jobs, children's judgments were linked to their knowledge of racial segregation of these jobs. In addition, novel occupations that had been depicted with African Americans were judged as lower in status than the identical occupations that had been depicted with European Americans, demonstrating a causal influence of workers' race on children's judgments. Children's age and socioeconomic background moderated their occupational judgments.

Research indicates that African Americans have a long history of occupational disadvantage in the United States relative to European Americans and that patterns of occupational inequality between African Americans and European Americans continue today (Bound & Freeman, 1992; Danzinger & Gottschalk, 1991; King, 1992). African Americans are underrepresented in high-status skilled and managerial sectors and overrepresented in low-status service positions. For example, African Americans are employed at 40% the rate of European Americans in managerial, professional, and sales occupations but are employed at almost twice the rate of European Americans in private household, service, and laborer occupations. Those middle-class African Americans who do gain access to higher paying, prestigious jobs often face the "glass ceiling" effect, whereby access to the highest echelons of most professions is blocked (Farley & Allen, 1987; Swinton, 1987; West, 1993). The Federal Glass Ceiling Commission Report (1995), for example, revealed that African Americans constitute 0.6% of senior-level managers in Fortune 1000 industrial and Fortune 500 service companies.

The occupational patterns of African Americans in the United States are likely to be relevant to the development of occupational aspirations in African American children and adolescents. Little developmental research, however, has examined whether African American children hold race-based occupational stereotypes or

whether these stereotypes are related to children's own occupational aspirations. At the practical level, information about these factors is important for designing effective educational programs to expand individuals' occupational opportunities. At the theoretical level, research on these topics is essential if the discipline is to build a more complete database on normative development of African American children within "racialized" U.S. society (see Garcia Coll et al., 1996; McLoyd & Randolph, 1985). In the present article, we report work on several issues pertaining to the ways in which the cultural context of work may affect African American children. First, we explore whether African American children are sensitive to the racial segregation that characterizes the U.S. workforce. In other words, we address the question of whether African American children are knowledgeable about which occupations are more typically associated with European Americans versus African Americans and, if so, whether they are cognizant of the differential status of these jobs. Second, we examine whether African American children form occupational stereotypes on the basis of race and whether racial distributions of workers affect their own occupational judgments and aspirations.

Little previous empirical or theoretical work has examined African American children's understanding of the world of work and whether—and if so, how—it is affected by racial group membership. A statement written almost a decade ago remains true today: "There has been almost no research on the way children acquire, during childhood and adolescence, the values, attitudes, and behavior patterns associated with ethnic group membership" (Phinney & Rotheram, 1993a, p. 291). Nearly all researchers agree, however, that socialization processes lead African American children to absorb the culture's ethnic attitudes unconsciously (see Aboud, 1988; Phinney & Rotheram, 1993b; Williams & Morland, 1976). Support for this contention comes from studies of African American children's knowledge and internalization of European Americans' broad stereotypes of African Americans. Considerable research indicates that African American children are knowledgeable about the racial stereotypes of traits held by

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European Americans. When presented with the forced choice of assigning traits to racial groups (or to African American and European American individuals), African American children are much more likely to assign positive traits (e.g., smart, friendly) to Whites and negative traits (e.g., lazy, mean) to Blacks than the reverse (Aboud, 1988; Spencer & Markstrom-Adams, 1990).

Unlike the large literature on trait-based racial stereotyping, there has been little work on occupation-related racial stereotyping. Yet it seems likely that African American children develop an awareness of race-related occupational stereotypes. Stereotypes are thought to reflect the distribution of social groups into societal roles (e.g., Eagly & Steffen, 2000), and African American children are exposed to a distribution of occupational roles in which race and status are correlated. This is likely to be true within both children's own environmental context and the broader U.S. culture. High-status African American occupational models are unlikely to be available to many African American children in their own families and communities, especially among children from lower socioeconomic backgrounds. Further, media portrayals include race-related information that reaches a broad range of children and can affect their racial attitudes (see Cortes, 2000; Graves, 1996, 1999). Analyses of prime time and Saturday morning television programming indicate that despite increases in the number and diversity of African American television characters, African American actors and actresses are still shown primarily in low-status jobs (Children NOW, 1998; Greenberg & Brand, 1993; Greenberg & Collette, 1997).

Although little work has examined occupational stereotyping, many studies have examined the occupational aspirations of African American children and adolescents (e.g., Cook et al., 1996). Findings suggest that African American students have relatively modest occupational goals compared with European American students (e.g., Hale, 1980). Most African American students select occupations in which African Americans traditionally have been well represented, such as military personnel, teacher, postal employee, hair stylist, or cafeteria worker (Terrell, Terrell, & Miller, 1993). Among some samples, the tendency to aspire to lower status occupations is present by the end of second grade (Cook et al., 1996). African American students' lower status occupational aspirations have been attributed to students' assessment of potential limitations afforded by their current socioeconomic status (SES; e.g., Hale, 1980). Their lower status aspirations have also been attributed to their awareness that they are likely to encounter prejudicial attitudes in occupational settings that are dominated by out-group members (Spencer, Dobbs, & Swanson, 1988; Spencer & Markstrom-Adams, 1990).

Previous empirical studies of occupational aspirations are characterized by several limitations, however. One problem is that race and SES have typically been confounded such that lower class African American children's goals and expectations are compared with those of middle- and upper class European American children (e.g., Cook et al., 1996). In addition to these confounds between race and economic status, past researchers have paid relatively little attention to the ways in which occupational aspirations may be shaped by social-cognitive variables (e.g., race-related stereotypes, differential availability of role models of different races).

The primary purpose of the present study was to provide empirical data that begin to examine the role of race in African American children's occupational judgments. Two features of our

design are particularly important. First, in addition to studying children's beliefs about occupational status, aspirations, and stereotyping of familiar jobs that vary with respect to racial composition in U.S. society, we also studied children's responses to novel jobs. By varying (between children) the race of workers depicted in these novel occupations, we could examine whether race influenced children's judgments about and interest in jobs that were otherwise identical. Second, we examined effects in relation to important variables within an African American sample. Specifically, we included both lower and higher SES African American children to permit us to distinguish between effects that might be linked to social class from those that might be linked to race, and we included both younger and older children.

Participants were African American children aged 6–7 and 11–12 years from a racially diverse school representing middle- and lower class populations. The younger age was selected because it allowed us to test children who are younger than those included in previous samples (e.g., Cook et al., 1996) but who nevertheless already have considerable understanding of a wide variety of adult occupational roles and occupational status in general (McGee & Stockard, 1991; Simmons, 1962). The older range was selected because it spans an age at which cognitive skills can be expected to have developed significantly and is an age that marks a transitional period into curriculum and job choices (e.g., part-time or summer work) that may privilege or constrain later occupational choices.

Method

Participants

Participants were 92 African American children (47 girls and 45 boys) recruited from the first and sixth grades of a racially heterogeneous (72% African American) school in the Midwest. For Grade 1, the mean age of participants was 7 years 2 months (range = 6 years 4 months to 7 years 11 months). For Grade 6, the mean age was 12 years 4 months (range = 11 years 4 months to 12 years 9 months). Approximately half of the participants were from lower SES backgrounds and half were from upper-middle SES backgrounds, according to information provided by the schools about students' qualification for free and reduced-price meal programs.

Procedural Overview

Parental permission forms were distributed to children in the first and sixth grades. Only those children whose parents returned permission slips and who themselves agreed to participate were included in the study (roughly 50% of the eligible children). Children were interviewed individually in a quiet room near their classroom by one of four African American experimenters (two male and two female). In a first session, children were given measures designed to assess their perceptions of occupational status and their occupational aspirations. In a second session, they were given measures designed to assess individual differences in (a) knowledge of racial stereotypes of occupations, (b) endorsement of racial stereotypes of occupations, and (c) endorsement of majority-culture trait stereotypes of African Americans. The racial stereotyping measures were always given following children's ratings of occupational status and aspirations. This order was used because the stereotyping measures explicitly identify race as a critical factor and thus, if given first, might have primed children to attend to race in their status and aspiration judgments. The two measures of children's endorsement of stereotypes showed no variability of responding among older children and very little variability among younger children (virtually all children rejected racial stereotypes). In light of this finding,

and given that these two measures had been given *after* all other measures and could thus not have affected other results, we omit any further discussion of these individual-differences measures.

Occupational Materials

Each of the occupational scales (i.e., status, aspirations, and stereotyping) contained 39 occupations. Of these, 27 were familiar occupations sampled from Swinton's (1987) categories of high- and medium-status occupations in which African Americans are underrepresented and from lower status occupations in which African Americans are overrepresented in comparison with European Americans (see Appendix). The remaining 12 were novel occupations, that is, occupations that participants would not have known about previously. The job titles and job descriptions for the novel occupations were taken from Liben, Bigler, and Krogh (2001). Included were 6 obscure job titles that testing had shown were unknown to children and even to most adults (e.g., *higgler*, "a person who sells items such as clothing, watches, or candy on the street. They carry the things they are selling along with them in a cart so that they can move up and down the street selling their goods") and 6 newly coined job titles used to refer to some work activity not already explicitly identified as a job in our culture (e.g., *tenic*, "a person in charge of creating handicapped parking places for city buildings and stores. They decide how many handicapped parking places there should be, where they should go, and supervise to make sure that the signs are put up correctly").

Pictorial illustrations of these jobs were based on those used by Liben et al. (2001), except that rather than varying the depicted sex of workers as had been done in that research, we varied the depicted race of workers. By manipulating the race of the workers who were depicted in the novel jobs, we could experimentally test the effect of a worker's race on children's perceptions of jobs without the extant confounds between jobs and race in the United States.

At the start of the session, children were told that the experimenter was interested in their opinions about various occupations. The child was told that although many of the jobs would be familiar, some would be unfamiliar and that the experimenter had thus brought pictures to explain these. Familiar and novel jobs were interspersed in one randomly ordered list, and whenever one of the 12 novel occupations was encountered, children were read a standard job description (as in the *higgler* and *tenic* examples given above) and shown colored drawings of two men and two women performing the job. Children were randomly assigned to conditions in which the workers shown in the drawings were either (a) four African Americans, (b) four European Americans, or (c) two African Americans and two European Americans. Job descriptions (minus pictures) were also prepared for all familiar jobs in case children expressed uncertainty about them. For younger children, this procedure was typically necessary two or three times per child, most often for the jobs of bank teller, business executive, and politician. For older children, no descriptions of familiar jobs were needed.

Dependent Measures

Ratings of occupational status. To assess children's ratings of occupational status, we asked them four questions about each of the 39 jobs, in the following order: (a) "How hard do you think it is to learn to be a(n) _____?"; (b) "How hard do you think it is to do the job of being a(n) _____ every day?" (c) "How much money do you think a(n) _____ gets paid?"; and (d) "How important is the job of being a(n) _____?" Children responded using a 5-point scale. For younger children, the numerical scale was supplemented by a graphic response format (thermometers indicating increasing levels of mercury). Response options included 1 (*none or not at all*), 2 (*a little . . . or a little bit*), 3 (*medium . . . or a medium amount*), 4 (*pretty . . . or pretty much*), and 5 (*very . . . or very much*).

Occupational aspirations. To assess children's desire to perform each of the 39 occupations, we asked them, "How much would you like to be

a(n) _____?" Participants responded using a 5-point scale, ranging from 1 (*not at all*) to 5 (*very much*), again supplemented by the thermometer graphics for the younger children.

Knowledge of occupational stereotypes. To assess children's knowledge of the racial composition of familiar occupations, as well as to elicit their beliefs about the racial composition of the novel occupations, we asked them, "Who usually does the job of being a(n) _____?" Response options included *only Black people*, *only White people*, and *both Black and White people*.

Results

Overview of Analyses

We present results in two major sections, covering ratings of familiar occupations and ratings of novel occupations. Because cell sizes would become unacceptably small if all potential between-group variables were included in the analysis of variance (ANOVA), we conducted preliminary ANOVAs to test for possible effects of participant sex. Results indicated no significant main effects or interactions involving sex of participant, and thus, data were pooled for boys and girls in the analyses reported below. In all cases, significant ANOVA effects were followed by comparisons across means using the Newman-Keuls method.

Familiar Occupations

Occupational status. As explained earlier, participants rated 27 familiar occupations for (a) difficulty to learn, (b) difficulty to perform, (c) pay, and (d) importance. As a preliminary analysis, we began by examining correlations between all pairs of questions. As expected, all pairs were significantly correlated (all $ps < .01$). Thus, we averaged responses to each of the four questions to create a composite status score that yielded a high Cronbach's alpha (.82). This composite score then served as the dependent measure in a 3 (job type: high, medium, and low status) \times 2 (age: 6–7 vs. 11–12) \times 2 (SES: higher vs. lower) repeated measures ANOVA, with job type as a within-subject variable. Because the Mauchly sphericity test was significant (i.e., the homogeneity of variance assumption was violated), the Geisser-Greenhouse procedure was used to adjust the degrees of freedom for the F tests involving the within-subject variable (i.e., job type). Table 1 presents means and standard deviations for status ratings of familiar jobs, broken down by participant age and SES.

As predicted, the main effect of job type was significant, $F(1.27, 99.14) = 1,889.62, p < .01$. Comparisons among means indicated that children rated high-status occupations as higher in status than the medium-status occupations, which in turn were rated as higher in status than low-status occupations. Also significant was the two-way interaction of participant age and SES, $F(1, 78) = 9.73, p < .01$. Post hoc analyses showed that within the older age group, familiar occupations were rated as lower in status by children from higher SES families than by children from lower SES families. Within the younger age group, however, ratings did not differ by SES. Subsumed by the interaction were significant main effects of participant age, $F(1, 78) = 17.77, p < .01$, and participant SES, $F(1, 78) = 5.49, p < .05$. Younger children (compared with older children) and children from lower SES backgrounds (compared with children from higher SES backgrounds) rated familiar occupations as higher in status.

Table 1
Mean Composite Status Ratings (and Standard Deviations) for Familiar Occupations by Participant Age and Socioeconomic Status (SES)

Age and SES group	Occupational status		
	High	Medium	Low
Age 6–7			
Higher SES	4.69 (0.28)	3.67 (0.21)	2.04 (0.35)
Lower SES	4.63 (0.22)	3.63 (0.22)	2.11 (0.25)
Combined	4.66 (0.25)	3.65 (0.22)	2.07 (0.31)
Age 11–12			
Higher SES	4.42 (0.25)	3.36 (0.15)	2.04 (0.36)
Lower SES	4.70 (0.19)	3.49 (0.12)	2.03 (0.32)
Combined	4.56 (0.26)	3.42 (0.15)	2.03 (0.33)
Combined ages	4.61 (0.26)	3.53 (0.22)	2.05 (0.32)

Note. Scores ranged from 0 to 5, with higher numbers indicating higher status.

Occupational aspirations. Participants' ratings of their own interest in performing familiar jobs were analyzed using a 3 (job type: high, medium, and low status) × 2 (age: 6–7 vs. 11–12) × 2 (SES: higher vs. lower) repeated measures ANOVA, with job type as a within-subject variable. Results indicated a significant three-way interaction of job type, age, and SES, $F(1.45, 117.73) = 11.06, p < .01$. Means and standard deviations are shown in Table 2. Post hoc comparisons among means indicated that among younger children, children from both higher and lower SES families showed significantly more interest in high-status than in medium- or low-status jobs and more interest in medium- than in low-status jobs. Among older children, the pattern differed by SES. Specifically, children from higher SES families showed the same pattern just described for younger children, although the differential interest by job status was less pronounced. Children from lower SES families showed no significant difference in their interest in high- and medium-status jobs. Furthermore, these children exhibited a much smaller (although still significant) differential interest in medium- versus low-status jobs.

Subsumed by the three-way interaction were significant two-

way interactions. First, there was a significant interaction of job type and participant SES, $F(1.45, 117.73) = 11.58, p < .01$. Post hoc comparisons indicated that although overall, children showed greater interest in high-status than in medium- and low-status occupations and higher interest in medium- than in low-status occupations, this pattern was more pronounced among children from higher than from lower SES families. Second, there was a significant two-way interaction of age and participant SES, $F(1, 81) = 11.67, p < .01$. Post hoc comparisons indicated that among older (but not younger) children, higher SES children expressed greater interest in occupations, overall, than did lower SES children. Further subsumed by these two-way interactions was a significant main effect of job type, $F(1.45, 117.73) = 467.35, p < .01$, with participants showing greater interest in high-status than in medium- or low-status occupations and greater interest in medium- than in low-status occupations.

Knowledge of occupational stereotypes. To examine whether participants were knowledgeable about which racial group was typically associated with the high-, medium-, and low-status jobs, we counted the number of times that children stated that African Americans usually performed each of the familiar occupations. A 3 (job type: high, medium, and low status) × 2 (age: 6–7 vs. 11–12) × 2 (SES: higher vs. lower) ANOVA indicated a significant interaction between job type and SES, $F(1.79, 146.86) = 4.62, p < .05$. Means and standard deviations are shown in Table 3. Post hoc comparisons among means indicate that children from lower SES backgrounds were more likely than those from higher SES backgrounds to believe that African Americans performed low- and medium-status jobs; means (and standard deviations) were 4.77 (2.76) and 2.02 (1.50), respectively, for lower SES children and 1.84 (1.96) and 0.34 (0.68) for higher SES children. In contrast, both higher and lower SES children agreed that African Americans were unlikely to perform high-status occupations; means (and standard deviations) were 0.03 (0.15) and 0.02 (0.15), respectively. Subsumed by the interaction was a significant main effect of job type, $F(1.29, 105.01) = 137.47, p < .01$. Children reported that African Americans were significantly less likely to perform high-status than medium- and low-status jobs and less likely to perform medium-status than low-status jobs.

Table 2
Mean Ratings (and Standard Deviations) of Interest in Familiar Occupations by Participant Age and Socioeconomic Status (SES)

Age and SES group	Occupational status		
	High	Medium	Low
Age 6–7			
Higher SES	4.01 (0.42)	2.63 (0.45)	1.16 (0.20)
Lower SES	3.98 (0.44)	2.63 (0.42)	1.14 (0.20)
Combined	4.00 (0.43)	2.63 (0.44)	1.15 (0.20)
Age 11–12			
Higher SES	3.18 (0.57)	2.11 (0.38)	1.14 (0.16)
Lower SES	1.85 (1.32)	1.71 (0.55)	1.09 (0.23)
Combined	2.49 (1.22)	1.90 (0.51)	1.11 (0.20)
Combined ages	3.26 (1.17)	2.26 (0.60)	1.13 (0.20)

Note. Scores ranged from 0 to 5, with higher numbers indicating greater interest.

Table 3
Mean Ratings (and Standard Deviations) of "Who Usually" Performs Familiar Occupations by Participant Age and Socioeconomic Status (SES)

Age and SES group	Occupational status		
	High	Medium	Low
Age 6–7			
Higher SES	0.04 (0.21)	0.31 (0.64)	1.28 (1.79)
Lower SES	0.00 (0.00)	2.19 (1.33)	4.61 (3.09)
Combined	0.02 (0.15)	1.23 (1.39)	2.95 (3.01)
Age 11–12			
Higher SES	0.00 (0.00)	0.73 (0.36)	2.36 (2.01)
Lower SES	0.04 (0.21)	1.86 (1.67)	4.91 (2.47)
Combined	0.02 (0.14)	1.11 (1.48)	3.64 (2.57)
Combined ages	0.02 (0.15)	1.17 (1.43)	3.30 (2.80)

Note. Scores are the number of "only Black people" responses of 9 possible.

Ratings of Novel Occupations

Occupational status. As was the case for familiar jobs, we began by examining the relation among ratings on the four status questions for novel jobs. As expected, all pairs were significantly correlated (all $ps < .01$), and thus, we again created a single composite score that had a high Cronbach's alpha (.87). This score then served as the dependent measure in a 3 (picture condition: only African American, only European American, or both African American and European American) \times 2 (age: 6–7 vs. 11–12) \times 2 (SES: higher vs. lower) ANOVA. Means and status ratings for novel jobs are presented in Table 4, again divided by participant age and SES.

Results indicated a significant three-way interaction of picture condition, age, and SES, $F(2, 72) = 9.33, p < .01$. Post hoc comparisons among means revealed that among younger children, both higher and lower SES children rated jobs depicted with only European Americans as significantly higher in status than jobs depicted with only African Americans. Among older children, lower (but not higher) SES children rated jobs depicted with only European Americans as significantly higher in status than jobs depicted with only African Americans. The identical pattern emerged for comparisons between jobs depicted with only European Americans and those jobs depicted with both European Americans and African Americans. That is, in the younger age group, both lower and higher SES children rated jobs depicted with only European Americans as higher in status than jobs depicted with both African Americans and European Americans. In the older age group, lower (but not higher) SES children rated jobs depicted with European Americans as significantly higher in status than jobs depicted with both African Americans and European Americans.

Subsumed by the three-way interaction was the two-way interaction of picture condition and age, $F(2, 72) = 12.97, p < .01$. Post hoc comparisons indicated that among younger children, jobs depicted with only European Americans were rated significantly higher in status than jobs depicted with only African Americans or jobs depicted with both African Americans and European Americans. In addition, jobs depicted with both African Americans and

European Americans were rated significantly higher in status than jobs depicted with only African Americans. Among older children, jobs depicted with only European Americans were rated significantly higher in status than jobs depicted with only African Americans (but not higher than jobs depicted with both African Americans and European Americans).

The two-way interaction of SES and age was also significant, $F(1, 72) = 8.17, p < .01$. Comparisons among means indicated that among younger children, higher and lower SES children rated the novel occupations similarly, whereas among older children, lower SES children rated the novel occupations as higher in status than did higher SES children.

Subsumed by the two-way interactions were main effects of picture condition, $F(2, 72) = 79.97, p < .01$; age, $F(1, 72) = 37.11, p < .01$; and SES, $F(1, 72) = 15.25, p < .01$. Comparisons among means indicated that children rated jobs depicted with only European Americans and jobs depicted with both African Americans and European Americans as significantly higher in status than jobs depicted with only African Americans. In addition, children rated jobs depicted with only European Americans as significantly higher in status than jobs depicted with both African Americans and European Americans. Overall, younger children rated the novel occupations as higher in status than did older children, and lower SES children rated the novel occupations as higher in status than did higher SES children.

Occupational aspirations. Data from participants' ratings of their own interest in performing novel jobs were analyzed with a 3 (picture condition: only African Americans, only European Americans, or both African Americans and European Americans) \times 2 (age: 6–7 vs. 11–12) \times 2 (SES: higher vs. lower) ANOVA. Results indicated a significant interaction of picture condition and SES, $F(2, 72) = 14.23, p < .01$. Means and standard deviations are presented in Table 5. Post hoc comparisons among means indicated that children from higher SES backgrounds showed significantly more interest in occupations depicted with only European Americans and jobs depicted with both African Americans and European Americans than they did in occupations depicted with only African Americans; means (and standard deviations) were 2.94 (0.51), 2.88 (0.75), and 2.09 (0.48), respectively. In contrast, children from lower SES backgrounds showed no significant differences in their level of interest across the three picture conditions, with means (and standard deviations) for the only European American, both African American and European American, and only African American conditions, respectively, 2.19 (1.30), 2.41 (1.02), and 2.45 (0.81).

The interaction of picture condition and age was also significant, $F(2, 72) = 13.64, p < .01$. Comparisons among means indicated that younger (but not older) children showed significantly more interest in occupations depicted with only European Americans and in occupations depicted with both African Americans and European Americans than they did in occupations depicted with only African Americans. The two-way interaction of SES and age was also significant, $F(2, 72) = 45.50, p < .01$. Post hoc comparisons indicated that among younger children, lower SES children showed more interest in the novel occupations than higher SES children; means (and standard deviations) were 3.37 (0.33) and 2.93 (0.75), respectively. Among older children, lower SES backgrounds showed less interest in the novel occupations than did

Table 4
Mean Composite Status Ratings (and Standard Deviations) for Novel Occupations by Participant Age and Socioeconomic Status (SES)

Age and SES group	Picture condition		
	African American	European American	Both
Age 6–7			
Higher SES	2.50 (0.39)	4.01 (0.19)	3.45 (0.73)
Lower SES	2.77 (0.14)	4.03 (0.29)	3.36 (0.29)
Combined	2.62 (0.33)	4.01 (0.23)	3.41 (0.34)
Age 11–12			
Higher SES	2.75 (0.40)	2.85 (0.20)	2.61 (0.19)
Lower SES	2.62 (0.41)	3.75 (0.16)	3.16 (0.09)
Combined	2.68 (0.39)	3.26 (0.50)	2.84 (0.32)
Combined ages	2.65 (0.36)	3.67 (0.54)	3.15 (0.43)

Note. Scores ranged from 0 to 5, with higher numbers indicating higher status.

Table 5
Mean Ratings (and Standard Deviation) of Interest in Novel Occupations by Participant Age and Socioeconomic Status (SES)

Age and SES group	Picture condition		
	African American	European American	Both
Age 6–7			
Higher SES	2.07 (0.57)	3.34 (0.26)	3.39 (0.50)
Lower SES	3.25 (0.31)	3.58 (0.40)	3.29 (0.25)
Combined	2.56 (0.76)	3.45 (0.34)	3.33 (0.37)
Age 11–12			
Higher SES	2.11 (0.47)	2.48 (0.27)	2.17 (0.26)
Lower SES	1.95 (0.58)	1.14 (0.35)	1.40 (0.36)
Combined	2.03 (0.49)	1.77 (0.75)	1.72 (0.50)
Combined ages	2.26 (0.67)	2.58 (1.03)	2.62 (0.92)

Note. Scores ranged from 0 to 5, with higher numbers indicating greater interest.

higher SES children; means (and standard deviations) were 1.50 (0.55) and 2.25 (0.36), respectively.

Subsumed by the two-way interactions were main effects of picture condition, $F(2, 72) = 3.95, p < .05$, and age, $F(1, 72) = 3.16, p < .01$. Post hoc comparisons among means indicated that children showed greater interest in occupations depicted with only European Americans and in occupations depicted with both African Americans and European Americans than they did in occupations depicted with only African Americans and that, overall, younger children expressed greater interest in novel occupations than did older children ($M_s [SDs] = 3.11 [0.6]$ and $1.84 [0.6]$).

Discussion

Results from the present study offer a number of important contributions to understanding the effects of occupational segregation of the workforce on African American children's judgments of occupational status and occupational aspirations. Overall, the data suggest that race has consistent and powerful effects on African American children's perceptions of occupations. In the discussion below, we first address implications of children's ratings of familiar occupations and then consider implications of findings from the experimental manipulation of race in the depiction of novel occupations.

Data from the familiar occupations indicated that children accord higher status to those jobs that have high concentrations of European Americans (and low concentrations of African Americans) than to those jobs with low concentrations of European Americans (and high concentrations of African Americans). This finding held for both lower and higher SES African American children. Furthermore, the finding of differential status ratings was obtained even in children as young as 6. It is possible, of course, that race per se is not the primary factor responsible for the differential ratings of these jobs. However, children's responses to questions about who "usually does" these jobs revealed that even 6-year-olds were highly knowledgeable about which racial group members are typically associated with which jobs. That is, children

were significantly more likely to say that jobs were performed by "only Black people" when the jobs asked about were low status (and, indeed, are held by a high proportion of African Americans in this society) than when the jobs were high status (performed by high proportions of European Americans).

It seems likely that awareness of the different statuses of occupations that are dominated by European Americans rather than African Americans is one aspect of a broad race-related occupational schema developed by African American children. Such a schema is likely to influence children's predictions about the status and desirability of both familiar and unfamiliar jobs. Consistent with this notion, a study by Averhart and Bigler (1997) demonstrated that African American children had better memory for stories in which light-complexioned African Americans performed high-status occupations (and dark-complexioned African Americans performed low-status occupations) than stories in which dark-complexioned African Americans performed high-status occupations (and light-complexioned African Americans performed low-status occupations).

Findings from children's ratings of their own interest in performing the familiar occupations are highly consistent with previous studies (e.g., Cook et al., 1996). The present data showed that younger children from both higher and lower SES backgrounds showed high levels of interest in the high-status occupations. Among 11–12-year-old children, however, there was evidence of lower occupational goals among participants with lower SES backgrounds. The significant effect of SES among older children provides support for the theory that economic variables may be important in shaping older children's occupational plans and aspirations (Hale, 1980).

Interestingly, the occupational interests of these African American children do not appear to be affected by stereotypic beliefs concerning the appropriateness of various occupations for European American and African American individuals. When children were asked which racial group(s) "should" perform the familiar occupations, participants responded in a highly unbiased manner, almost invariably answering that "both Whites and Blacks" should perform all occupations.

The most compelling evidence of the role played by race in African American children's assessment of occupational status, however, is the set of data derived from novel occupations. These data are particularly useful because they avoid the usual problem of separating effects of workers' race from many other job qualities. Most critically, even though the jobs themselves were identical across conditions, children's ratings of the status of novel occupations differed in relation to whether the jobs were depicted with only European American, only African American, or both European American and African American workers. Specifically, African American children rated occupations that had been depicted with only European American workers as being higher in status than the identical occupations depicted with only African American workers. Across age and socioeconomic backgrounds, children rated occupations that were performed solely by African Americans as particularly low in status. These data indicate clearly that race has an independent effect on occupational judgments and thus that it cannot be only the qualities inherent in occupations themselves that affect children's judgments about job status. In short, the data support the conclusion that *solely as a function of workers' race*, jobs performed by African Americans are viewed

as lower in status (e.g., less difficult to learn and perform, receiving lower pay, and being less important) than the very same occupations performed by European Americans.

The data derived from the experimental manipulations of race of worker also showed that depicted race affected African American children's own desires to perform various occupations. Overall, children rated their own level of interest in performing the depicted novel occupations as significantly lower when the occupations had been depicted as performed exclusively by African Americans than when the occupations had been depicted as performed exclusively by European Americans or by both African Americans and European Americans. Again, these data are particularly informative in that they clearly indicate that the race of occupational models—apart from the content and activities of the occupations themselves (which were held constant)—affects children's own occupational interests.

In addition to demonstrating the importance of racial cues in American children's judgments about occupations at the group level, the present data also contribute to our understanding of developmental and group differences in African American children's occupational stereotyping, judgments, and goals. Consistent with Hale's (1980) reality theory, socioeconomic factors do appear to influence children's occupational judgments, particularly at adolescence. Among the 11–12-year-olds, those children from lower SES backgrounds showed less interest in performing familiar occupations that were populated primarily by European Americans and hence that were associated with higher status. It is possible that economic factors are important in this decision, with lower SES children realizing that they lack the financial resources to pursue jobs that require a good deal of education beyond high school.

Importantly, significant interactions between participants' SES background and age were found for the way that children rated the desirability of novel jobs. Consistent with the pattern for familiar occupations, older children from higher—but not lower—SES backgrounds were significantly more interested in performing novel occupations that they saw performed solely by European Americans or by both African Americans and European Americans than they were in occupations that they saw performed solely by African Americans. Obviously, it is impossible to determine the cause of the differential effect of race of occupational worker among children from different age and economic groups on the basis of these data alone. As Spencer (1985) suggested, the occupational goals of older African American children may be influenced by their consciousness of racial discrimination within society, in general, and within occupational settings, in particular. Economically disadvantaged youths may be especially ill prepared to cope with the perceived racial biases of the majority culture (Spencer & Markstrom-Adams, 1990). It is also possible that the perception of economic constraints among older African American children leads to decreased interest in what they perceive to be high-status, and thus difficult-to-attain, occupations. What is clear from these data is that by the age of 6, African American children have developed racial schemas that incorporate beliefs about occupations and that these schemas affect their perceptions of jobs and occupational aspirations in significant ways. Further, these schemas differ in important ways across development and across children from different socioeconomic backgrounds.

The relation between race of workers and ratings of status found here is troubling given the potential for two types of vicious cycles with respect to race and jobs. First, African American children, especially those from disadvantaged backgrounds, may preferentially seek out low-status jobs in which minorities are well represented and thereby ensure that such jobs remain overpopulated by minorities, thus perpetuating the skewed models for new generations of poor African American children. Second, those medium- and high-status jobs that do attract an increasing proportion of African American workers (perhaps from more advantaged households) may, across time, be viewed as lower in status simply as a function of the race of the worker, and consequently show decreasing levels of pay and prestige. Indeed, many people have argued that a similar cycle of decreasing pay and prestige characterizes those occupations that show increasing proportions of female versus male workers (see, e.g., American Psychological Association, 1995).

These data also attest to the importance of attending to heterogeneity within African American children. Beliefs about race and the workforce seem to change with age. Among older children, beliefs about race and the status and desirability of occupations are especially diverse. The present findings suggest that it may be useful to devise interventions that address children's knowledge about race and the workforce, as well as how racial schemas affect their aspirations to perform certain occupations in the future (see, e.g., Aboud & Levy, 1999). For example, such interventions might explicitly address the absence or low percentage of African Americans among high-status jobs presented routinely in school settings (e.g., president of the United States).

Finally, it is important to note that this study represents only one step in the process of understanding the effects of race on occupational judgments. SES is only a rough marker of the family experiences that may contribute to occupational stereotyping and aspirations. Furthermore, the marker of SES used here (i.e., qualification for free or reduced-priced school lunches) is not ideal for tapping family income (see Hauser, 1994). Future work should examine more closely how financial constraints shape vocational goals and expectations, including consideration of how families discuss occupations, the types of role models provided by parents' own work, and how school and community contexts contribute to occupational stereotyping. It will also be important to examine these issues among other samples of African American children (ideally with higher rates of participation than obtained here) and among children from other racial and ethnic groups. Clearly, further research is needed to understand more completely the long-term implications of children using racial cues as a factor in determining their judgments about and interests in occupations.

References

- Aboud, F. E. (1988). *Children and prejudice*. New York: Blackwell.
- Aboud, F. E., & Levy, S. R. (Eds.). (1999). Reducing racial prejudice, discrimination, and stereotyping: Translating research into programs. *Journal of Social Issues*, 55(4).
- American Psychological Association. (1995). *Task force report on the changing gender composition of psychology*. Washington, DC: Author. Retrieved February 27, 2003, from <http://www.apa.org/pi/taskforce/homepage.html>
- Averhart, C. A., & Bigler, R. S. (1997). Shades of meaning: Skin tone,

- racial attitudes, and constructive memory in African American children. *Journal of Experimental Child Psychology*, 67, 363–388.
- Bound, J., & Freeman, R. (1992). What went wrong? The 1980's erosion of the economic well-being of Black men. *Quarterly Journal of Economics*, 107, 201–232.
- Children NOW. (1998). *A different world: Children's perceptions of race and class in the media*. Oakland, CA: Children NOW.
- Cook, T. D., Church, M. B., Ajanaku, S., Shadish, W. R., Kim, R., & Cohen, R. (1996). The development of occupational aspirations and expectations among inner-city boys. *Child Development*, 67, 3368–3385.
- Cortes, C. E. (2000). *The children are watching: How the media teach about diversity*. New York: Teachers College Press.
- Danzinger, S., & Gottschalk, D. (1991). *Uneven tides*. New York: Russell Sage.
- Eagly, A. H., & Steffen, V. J. (2000). Gender stereotypes stem from the distribution of women and men into social roles. In C. Stangor (Ed.), *Stereotypes and prejudice: Essential readings* (pp. 142–160). Philadelphia: Psychology Press.
- Farley, R., & Allen, W. R. (1987). *The color line and the quality of life in America*. New York: Russell Sage Foundation.
- Federal Glass Ceiling Commission. (1995). *Good for business: Making full use of the nation's human capital*. Washington, DC: U.S. Government Printing Office.
- Garcia Coll, C., Lamberty, G., Jenkins, R., McAdoo, H. P., Crnic, K., Wasik, B. H., & Vazquez Garcia, H. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development*, 67, 1891–1914.
- Graves, S. B. (1996). Diversity on television. In T. M. MacBeth (Ed.), *Tuning in to young viewers: Social science perspectives on television* (pp. 61–86). Newbury Park, CA: Sage.
- Graves, S. B. (1999). Television and prejudice reduction: When does television as a vicarious experience make a difference? *Journal of Social Issues*, 55, 707–725.
- Greenberg, B. S., & Brand, J. E. (1993). Cultural diversity on Saturday morning television. In G. Berry & J. K. Asamen (Eds.), *Children and television: Images in a changing sociocultural world* (pp. 132–142). Newbury Park, CA: Sage.
- Greenberg, B. S., & Collette, L. (1997). The changing faces on TV: A demographic analysis of network television's new seasons, 1966–1992. *Journal of Broadcasting & Electronic Media*, 41, 1–13.
- Hale, J. E. (1980). De-mythicizing the education of Black children. In R. L. Jones (Ed.), *The Black psychology* (pp. 221–230). San Francisco: Harper & Row.
- Hauser, R. M. (1994). Measuring socioeconomic status in studies of child development. *Child Development*, 65, 1541–1545.
- King, M. C. (1992). Occupational segregation by race and sex, 1940–1988. *Monthly Labor Review*, 115, 30–37.
- Liben, L. S., Bigler, R. S., & Krogh, H. R. (2001). Pink and blue collar jobs: Children's judgments of job status and job aspirations in relation to sex of worker. *Journal of Experimental Child Psychology*, 79, 346–363.
- McGee, J., & Stockard, J. (1991). From a child's view: Children's occupational knowledge and perceptions of occupational characteristics. In S. Cahill (Ed.), *Sociological studies of child development* (Vol. 4, pp. 113–136). Greenwich, CT: JAI Press.
- McLoyd, V. C., & Randolph, S. (1985). Secular trends in the study of Afro-American children: A review of *Child Development*, 1936–1980. In A. B. Smuts & J. W. Hagen (Eds.), *History and research in child development. Monographs of the Society for Research in Child Development*, 50(4–5, Serial No. 211), 78–92.
- Phinney, J. S., & Rotheram, M. J. (1993a). Children's ethnic socialization: Themes and implications. In J. S. Phinney & M. J. Rotheram (Eds.), *Children's ethnic socialization: Pluralism and development* (pp. 274–292). Newbury Park, CA: Sage.
- Phinney, J. S., & Rotheram (Eds.). (1993b). *Children's ethnic socialization: Pluralism and development*. Newbury Park, CA: Sage.
- Simmons, D. D. (1962). Children's rankings of occupational prestige. *Personnel and Guidance Journal*, 41, 332–336.
- Spencer, M. B. (1985). Cultural cognition and social cognition as identity factors in Black children's personal-social growth. In M. B. Spencer, G. K. Brookins, & W. R. Allen (Eds.), *Beginnings: The social and affective development of Black children* (pp. 215–230). Hillsdale, NJ: Erlbaum.
- Spencer, M. B., Dobbs, B., & Swanson, D. P. (1988). Afro-American adolescents: Adaptational processes and socioeconomic diversity in behavioral outcomes. *Journal of Adolescence*, 11, 117–137.
- Spencer, M. B., & Markstrom-Adams, C. (1990). Identity processes among racial and ethnic minority children in America. *Child Development*, 61, 290–310.
- Swinton, D. (1987). *The state of African American America 1987*. New York: National Urban League.
- Terrell, F., Terrell, S. L., & Miller, F. (1993). Level of cultural mistrust as a function of educational and occupational expectations among African American students. *Adolescence*, 28, 573–578.
- West, C. (1993). *Race matters*. Boston: Beacon Press.
- Williams, J. E., & Morland, J. K. (1976). *Race, color, and the young child*. Chapel Hill: The University of North Carolina Press.

(Appendix follows)

Appendix

Familiar Occupations Rated by Participants

Occupational status		
High	Medium	Low
Airline pilot	Bank teller	Car washer
Business executive	Bus driver	Cashier
College professor	Electrician	Fast food worker
Dentist	Fire fighter	Garbage collector
Doctor	Hair dresser	Grocery bagger
Politician	Mail carrier	Janitor
Scientist	Police officer	Laundry worker
Surgeon	School teacher	Maid
Veterinarian	Secretary	Waiter

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