

Bias and Achievement
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Introduction

Improving academic engagement, achievement, and successful school completion among ethnic minority youth in the U.S. is one of the most critical challenges currently facing educators in the United States. Overall, children in the United States are relatively disengaged from school (Marks, 2000) and perform lower than youth in other industrialized countries on international assessments (NCES, 2006), raising broad concerns about the structure, processes, and goals of schooling in this country. However, within the U.S., Black and Latino students lag far behind European American and Asian American children in academic competencies and behaviors conducive to school success. These group differences are present at school entry and persist - even increase - into adolescence (Alexander, Entwisle, & Dauber, 1993; Jenks & Phillips, 1998; Lee & Burkham, 2002; Phillips, Crouse, & Ralph, 1998)). For example, according to the most recent National Assessment of Educational Progress, by fourth grade 41% of White and 46% of Asian American students compared with 14% of Black and 17% of Hispanic students were proficient in reading in 2007. In this same year, 51% of White and 58% of Asian American fourth graders were proficient in Math compared to 15% of Black and 22% of Hispanic fourth graders (NCES, 2007).

Gaps in school behavior and performance across ethnic and racial groups are undoubtedly determined by a complex array of factors, many of which have been explored extensively. Among them are differential levels of family investment and involvement in children's academic activities (Horvat, Weininger & Lareau, 2003; Lareau, 2000), differences in family resources, school quality, and neighborhood contexts (Lee & Burkham, 2002)), and motivational/attitudinal characteristics of children themselves (Ladd, Birch, & Buhs, 1999). However, the possibility that differences in achievement can be partially attributed to the prevalence of racial/ethnic stereotypes or to related racial/ethnic biases that children experience in school settings is noted occasionally by vastly understudied, especially in research concerning preschool and early elementary school children. In light of researchers' awareness that processes occurring early on in school set children on an achievement trajectory that may influence them for the rest of their lives, understanding the potential role of subtle and overt racial or ethnic biases in these processes seems critical.

In this brief review, I outline research that is relevant to a more complete understanding of experiences of racial bias at school among ethnic minority preschool and early elementary school (k-3) children and the potential consequences of these experiences for their academic performance and school behaviors. Relevant research comes from several different lines of inquiry including research on (1) children's race awareness and awareness of prejudice and discrimination; (2) racial/ethnic stereotypes and teachers differential attitudes towards and treatment of students from different racial or ethnic backgrounds, (3) children's experiences of discrimination in school contexts and (4) children's susceptibility to stereotype threat processes. Notably, although studies in each

of these areas are clearly relevant to evaluating the possibility that racial or ethnic bias contribute to patterns of early underachievement among youth from particular ethnic minority groups, these literatures have developed independently rather than in concert.

Before proceeding, it seems useful to acknowledge that the term race denotes groups derived from similarity in phenotypic characteristics but only minimally identifies biologically or genetically distinct groups. Although race is largely socially constructed, it nonetheless has powerful meaning in the United States (Moses, 2004), especially for members of groups with distinctive phenotypic characteristics (e.g., Blacks, Asians) (Lee, 1999; Nagel, 1994). The term “ethnicity” implies a set of characteristics that include cultural values, language, traditions, and behaviors shared by a geographically contiguous group that is transmitted inter-generationally. As social categories, both race and ethnicity can form the basis of stereotypes and bias experiences. Until recently, however, these terms have been used interchangeably in the literature and recent efforts to establish when one term should be used in lieu of another have yielded little consensus among scholars (Bonham, Warshauer-Baker, & Collins, 2005; Lee, 2002; Quintana et al., 2006). In this brief, I use the term race/ethnicity and related variations in recognition that both may be come into play in children’s school experiences.

Children’s awareness of race, stereotypes, prejudice, and discrimination

Children become aware of racial/ethnic categories at a very young age. They notice phenotypic variation across individuals as early as age 2 and are able to identify members of different racial/ethnic groups by 3-5 years of age (Aboud, 2005; Katz & Kofkin, 1997). In addition, similar to adolescents and adults, children show a preference towards their own over other racial/ethnic groups, rating them more favorably, preferring them over out-group members, and rewarding them more than the out-group. This tendency towards in-group favoritism is among the most widely studied phenomena within social psychology, with social identity and social categorization theories as its underpinning, and forms the basis for much of the developmental knowledge about prejudice among young children (Aboud, 2005; Barrett & Davis, 2008; Bigler, Jones, & Lobliner, 1997; Bigler & Liben, 1993; Hogg & Abrams, 2001; Nesdale & Flessler, 2001; Nesdale, Maass, Durkin, & Griffiths, 2005; Nesdale, Durkin, Maass, & Griffiths, 2004).

By early elementary school, children are not only aware of race/ethnicity but they are also aware of the nature of inter-group relations in society (Brown & Bigler, 2005; Cameron, Alvarez, Ruble, & Fuligni, 2001; McKown, 2004; McKown & Weinstein, 2003; Quintana & McKown, 2008; Verkuyten, Kinket, & van der Weilen, 1997). For instance, in one study 6 - 10 year old children were, with age, increasingly able to infer that stereotypes formed the basis for others’ behaviors and increasingly cognizant of broadly held stereotypes about racial/ethnic groups in the United States (McKown & Weinstein, 2003). By age 10, 93% of all children were able to infer others’ stereotypes; 80% of African American and Latino children and 63% of White and Asian American children were aware of broadly held racial/ethnic/stereotypes in the U.S. In a related study, McKown (2004) documented that almost half of this sample mentioned racial/ethnic stereotypes, prejudice, or discrimination in the course of an open-ended interview about intergroup relations. Older children and African American children

made more references to discrimination and racial/ethnic/power hierarchies than did their younger and non-African American (White, Asian American, and Latino) counterparts. In addition, at each age, African American children's conceptions of racism and discrimination were more differentiated and more elaborated. Quintana and colleagues' program of research, like others, finds that the sophistication of children's reasoning about race/ethnicity increases dramatically between early and middle childhood such that by age 10 most children can articulate prejudice and discrimination as important characteristics of inter-group relations (Quintana, 1994; 1998; Quintana & Vera, 1999).

Children's capacities to understand racial/ethnic categories in sophisticated ways lay the groundwork for other processes – such as susceptibility to teacher differential treatment, stereotype threat, and experiences of discrimination – to influence their academic orientations, motivations, and performance. That is, once children are aware of race and ethnicity, and of related processes of prejudice and discrimination, they may also be able to detect potentially harmful racially/ethnically charged situations and may be influenced negatively by biased attitudes and expectations from others.

Stereotypes about ability and differential teacher expectancies, treatment, and support

At the same time that children are becoming aware of the meaning of race/ethnicity, and of racial/ethnic stereotypes, discrimination and power hierarchies in the U.S., they are potentially exposed to them in the form of stereotypes and differential expectations, treatment, and support from teachers. Studies have demonstrated that powerful stereotypes exist among educators, practitioners, and community members regarding the academic goals, work habits, and abilities of students from different racial and ethnic backgrounds. For Black and Latino students, stereotypes include low academic achievement, disengagement from school, and lack of academic ability (Oyserman, Gant, & Ager, 1995). For Asian American students, stereotypes include being hard working, motivated, and highly engaged in school – a “model minority” (Fuligni, Witkow, & Garcia 2005; Lee, 1994). In an extensive program of research on academic values and achievement, Graham and colleagues' have shown that by middle school children are quite cognizant of stereotypes about the academic performance and behaviors of students from different ethnic groups, rating African American and Latino boys (as compared to girls or White boys) as less likely to work hard and most likely to cause trouble in the classroom (Graham, 2001; Graham & Taylor, 2002; Hudley & Graham, 2001). As I shall later discuss, these stereotypes (and transactions resulting from them) may also contribute to performance differentials across groups.

The question of whether teachers hold biased attitudes about racial/ethnic minority children from stigmatized groups (e.g., Blacks and Latinos), or behave in a way that reflect such biases, is both controversial and emotionally charged. On the one hand, scholars have documented differences in teachers' attitudes and preconceptions favoring European American and Asian American over Black and Latino children in a number of studies (Farkas, Grobe, Sheehan, & Shuan, 1990; Farkas, 2003; Ferguson, 1998). On the other hand, scholars have argued that differential teacher views, where they exist, reflect accurate assessments of differences in children's abilities, are difficult to sustain when incorrect, and have relatively minor consequences for children's later performance. (e.g., Brophy, 1985; Haller, 1985; Jussim, Eccles & Madon, 1996; Jussim & Harber, 2005)

In light of this relative lack of consensus, the empirical literature on differential teacher attitudes during the early (prek-3) years is surprisingly limited in scope. The few studies that exist utilize local samples and, due to reliance on naturalistic as opposed to experimental methods, it is difficult to disentangle children's race/ethnicity from other child characteristics. Moreover, only a handful of studies having been conducted within the past 10 years. For instance, of the 39 studies on racial bias in teacher expectations covered in Tennenbaum and Ruck's (2007) meta-analysis, 11 focused on early elementary school (k-3) children or teachers and, of these, only two have been published since 1998 (Pigott & Cowen, 1998; Sbarra & Pianta, 2001). Notably, both of these studies reported that teachers judged African American children to have more classroom problems and fewer competencies than their White counterparts, as did Downey and Prebesh's (2004) analysis of data on teacher attitudes using the ECLS-K. Further, in Sbarra and Pianta (2001) whereas teachers' ratings of competence for White students remained stable, their ratings of competence among Black students declined over the course of a school year. Pigot and Cowen's (2000) study also found that teachers held lower expectations for African American children's performance. Two additional studies (Ferguson, 2003; Hughes, Gleason, & Zhang, 2005) reported that early elementary school teachers rated African American students as having lower academic abilities than their White or Hispanic counterparts. These recent studies, though few in number, are consistent with conclusions from earlier studies that differences in teachers' attitudes toward and expectations for European American versus Black and Latino children exist very early on in children's school careers (e.g., (Alexander, Entwisle, & Thompson, 1987; Baron, Tom, & Cooper, 1985; Guttmann & Bar-Tal, 1982; Irvine, 1985).

Studies have also documented differences in the quality of teacher-student relations for children of different racial/ethnic backgrounds in preschool and early elementary school, according to children's and teachers' reports. In a study including head start preschoolers, kindergarten, and first grade students, African American males were found to have more conflictual relationships with teachers as early as preschool, according to children's and teachers' reports (Mantzicopoulos & Nueharth-Prichett, 2003). Teachers have been found to report more conflict and more dependency among African American as compared to White, Latino, or Asian kindergarten and first grade students (Kesner, 2000; Murray & Murray, 2004; Murray, Murray, & Waas, 2008; Saft & Pianta) and less supportive relationships with African American as compared to other students (Hughes et al., 2005). African American kindergarten children themselves are also less likely than White kindergarten children to report supportive relationships with their teachers, beginning early in elementary school (Birch & Ladd, 1997; 1998).

Differences in observable teacher interactions with European American versus ethnic minority children (Rist, 1970; Rist, 2000; Taylor, 1979) and disproportionality in special education and disciplinary referrals (Bullara, 1993; Eitle & Eitle, 2004; Gordon, Della Piana, & Keleher, 2000; Skiba, Simmons et al., 2006; Skiba, Michael, Nardo, & Peterson, 2002; Skiba, Poloni-Staudinger, Gallini, Simmons, & Feggins-Azziz, 2006) have also been identified as mechanisms through which race-related bias may undermine the academic engagement and performance of ethnic minority children. However, few studies concerning these issues have been conducted within the past decade and none

have focused exclusively on the early elementary school years. Taylor (1979) asked teacher education students to teach a lesson to a phantom 6 year old student, allegedly watching the lesson from behind a screen. Teachers gave briefer feedback, less positive feedback, and fewer helpful “slips of tongue” when the hypothetical student was thought to be Black versus White, especially if the Black student was also thought to be low achieving. Similar results have been reported from an observational study of teachers interactions with African American and White 7th graders (Casteel, 1998). Analysis of disciplinary and special education referral records also consistently find that African American students are over-represented in the most restrictive special education settings (relative to others with the same disability) and are also over-represented in disciplinary referrals and suspensions (Gregory, 1997; Skiba, Simmons et al., 2006; Skiba et al., 2002; Skiba, Poloni-Staudinger et al., 2006). In analyses of state-wide disciplinary data from Indiana, Skiba et al (2002) concluded that African American students’ disproportionate referrals rates could not be explained by differences in African American versus White students’ behaviors.

In sum, then, although the literature is small and limited in scope, existing studies suggest, at minimum, that differences may exist in the school experiences of non-Asian ethnic minority elementary school children as compared to their White and Asian counterparts. Even preschool and kindergarten teachers view African American children as having fewer competencies and more behavior problems than their White or Asian counterparts, and teachers and children themselves report less supportive teacher-child relationships. Some studies have reported bias in teachers’ verbal and non-verbal interactions with African American children, and in their patterns of referring them for special services and for disciplinary actions, although it is less clear the age at which these patterns are initiated. These differential experiences have very important consequences for children’s school engagement and performance, which are discussed next.

Teacher-student dynamics and children’s academic achievement

How might these teacher student dynamics contribute to lower achievement orientations and performance among ethnic minority students? Teacher expectations operate both through teachers’ provision of differential opportunity to students they perceive as being low versus high achieving and by influencing children’s perceptions of themselves as capable learners. Several studies have found that high achievers are exposed to more challenging and more difficult material and are given more opportunities for autonomy and leadership (Brattesani, Weinstein, & Marshall, 1984; Jussim & Harber, 2005; Kuklinski & Weinstein, 2001). Children as young as first grade show an awareness of the differential behaviors teachers exhibit towards low versus high achieving students (Babad, 1990; Babad, Bernieri, & Rosenthal, 1991; Kuklinski & Weinstein, 2001; McKown & Weinstein, 2002). In turn, children’s awareness has been found to predict their own expectations for their academic progress, especially among older elementary school children (Kuklinski & Weinstein, 2001). Some studies have documented relationships between teacher expectations early in the school year and year-end achievement, controlling for prior achievement, and these effects appear to be strongest in classrooms where teachers behave most differently towards low and high achieving students (Hughes & Zhang, 2007; Jussim & Harber, 2005; Kuklinski & Weinstein, 2001).

Thus, if ethnic minority student on average have teachers who expect less of them, these expectations are likely to contribute to their lower performance.

A vast literature has also demonstrated the influence that early relationships with teachers can have for children's long-term engagement in school and their academic performance. Students who have more supportive teacher relations are more engaged in school, work harder, preserve more, participate more in class, and are more attentive than their counterparts (Little & Kobak, 2003; Ridley, McWilliam, & Oates; Battistich, Solomon, Watson, & Schaps, 1997; Birch & Ladd, 1997, 1998). Among preschoolers, supportive teacher-child relationships have been found to predict growth in literacy and language skills, bigger gains in social skills, and larger decreases in problem behavior over the course of a school year (Burchinal, Peisner-Feinberg, Pianta, & Howes, 2002; Peisner-Feinberg et al., 2001; Peisner-Feinberg & Burchinal, 1997). Kindergarten teachers' instructional and emotional support has been associated with children's acquisition of math skills, behavioral adjustment, academic self-perceptions, and meeting of academic standards at the end of the school year (Perry, Donohue, & Weinstein, 2007). Supportive student-teacher relations have also been found to attenuate aggressive students' subsequent levels of aggression as rated by teachers and peers (Hughes, Cavell, & Jackson, 1999; Meehan, Hughes, & Cavell, 2003) and to predict fewer disciplinary infractions, lower risk for suspension, more positive teacher ratings of work habits through 8th grade (Hamre & Pianta, 2001)

Complicating the evidence that dynamics between students and teachers are important during early elementary school are findings that African American children are particularly vulnerable in light of low teacher expectations or poor quality student-teacher relations (Jussim et al., 1996; McKown & Weinstein, 2002). Teachers ratings of children's maturity (Entwisle & Alexander, 1988), children's perceptions of teacher expectations (McKown & Weinstein, 2002), and teacher-student relationship quality (Burchinal, Peisner-Feinberg, Pianta, & Howes, 2002) have each been found to more strongly predict achievement outcomes for African American as compared to other students in early elementary school. In Peisner-Feinberg and Burchinal (1997), teacher-child closeness among preschoolers was more strongly related to verbal skills among children of color than among Whites, and these relationships were more evident in early rather than in later years of schooling. Jussim et al. (1996) found that the association between teachers' expectations and math performance was stronger among African American 6th graders than among their White counterparts, suggesting that African American youths' apparent sensitivity to teachers continues, at least through middle school.

Children's perceived discrimination in school

At some point in the course of development, ethnic minority children begin to attribute unfair treatment and discrimination they experience to race. However, there is not yet a firm empirical basis for knowing when children begin to make racial attributions when they encounter others who hold negative stereotypes or treat them unfairly. By mid to late adolescence, the majority of ethnic minority youth report having experienced racial bias and discrimination (Fisher, Wallace, & Fenton, 2000; Umaña-Taylor & Updegraff, 2007; Gibbons, Gerrard, Cleveland, Wills, & Brody, 2004; Simons et al., 2002) and such experiences have been associated with less favorable psychological, academic, and

behavioral outcomes (Fisher et al., 2000; Rivas-Drake, Hughes, & Way, 2008; Wong, Eccles, & Sameroff, 2003) (Ruck & Wortley, 2002). Although research has examined early elementary school children's understanding of prejudice (Cameron et al., 2001) (McKown & Weinstein, 2003; Quintana & Vera, 1999), few studies have examined the extent to which children in grades k – 3 report personal experiences with discrimination and none have inquired specifically about racial/ethnic bias they may personally experience in school.

Although children theoretically have the cognitive pre-requisites for perceiving discrimination by the time they are 8 – 10 years of age (Brown & Bigler, 2005), the few studies that have examined personal experiences of discrimination among early elementary school children have found that only a small proportion of them report it. In Szalacha and colleagues study of Puerto Rican children in grades 1-3, 14% reported having experienced discrimination due to their ethnicity/race (Szalacha et al., 2002). As in studies of adolescents, children reporting discrimination also reported more depression, more school stress, and more problems in behavioral adjustment. However, among the 13-14 year olds in this study, 49% reported personal experiences of discrimination. Gibbons et al. (2004) and Simons et al (2002) each reported that the large majority of African American 10-12 year old children reported discrimination based on race including having been insulted (67%), racial slurs (46%), and being suspected of doing something wrong (43%). Rivas-Drake, Hughes, and Way (in press) also reported that the majority of African American, Dominican, Puerto Rican and Chinese 11-12 year old children reported discrimination from peers and adults in school. Chinese students were especially likely to report harassment and teasing from peers in schools, whereas African American students were especially likely to be report being subject to negative stereotypes. Thus, it seems possible that sometime between 1st and 5th grade, and with increasingly sophisticated understandings of racial issues, children begin to make racial attributions for some of their experiences with unfair treatment, which likely include negative experiences at school

Stereotype threat processes

Even if few ethnic minority early elementary school aged children report personal experiences with discrimination, their awareness of negative stereotypes about the intellectual abilities of ethnic minority individuals may contribute to under-performance and dis-identification with school. Indeed, McKown and Weinstein's (2001) found that stereotypes about inferior intellectual abilities was the most common stereotype that 6 – 10 year old children were aware of. *Stereotype threat processes* (Steele & Aronson, 1995) are those in which poor performance on an evaluation tasks occurs as a function of a targets' awareness of, and anxiety about, a negative stereotype about their group vis-à-vis the skill the performance task in intended to assess. Stereotypes may be activated directly when the stereotyped identity is explicitly made salient (Shih, Pittinsky, & Ambady, 2001; Steele & Aronson, 1995), or when engagement in a particular type of task makes makes it salient (Ambady, et al., 2001) . Stereotype threat has been documented for African Americans in the domain of intellectual performance (Steele & Aronson, 1995; Steele, 1997), for women in the domain of math (Kiefer & Sekaquaptewa, 2007; Lesko & Corpus, 2006; Spencer, Steele, & Quinn, 1999), for white men in the domain of athletic performance (Stone, Lynch, Sjomeling, & Darley, 1999),

and for older adults in the domain of memory skills (Hess & Hinson, 2006; Hess, Auman, Colcombe, & Rahhal, 2003).

Although the stereotype threat literature is based primarily on college students and adults, researchers are beginning to document that these processes operate at a very early age. To date, several studies with young elementary school children have reported patterns consistent with stereotype threat processes related to gender and ethnic stereotypes (Ambady, Shih, Kim, & Pittinsky, 2001; McKown & Weinstein, 2003; Muzzatti & Agnoli, 2007; Neuville & Croizet, 2007). In one study among k-2nd grade Asian Americans (Ambady et al., 2001), Asian American girls scored significantly higher than controls on a math accuracy task when ethnicity was made salient and significantly lower than controls when gender was made salient. Boys performed better than controls when their Asian or male identities were activated. In McKown and Weinstein (2003), 6 – 10 year old Black and Latino children scored significantly lower than did their White counterparts on a verbal memory task in the condition in which the task was said to be diagnostic of ability whereas there were no ethnic differences in performance in the non-diagnostic condition.

Conclusions about the state of knowledge

The current research literature suggests that African American children, and possibly Latino children, encounter school experiences that are subtly distinct from that of their White and Asian American counterparts from a very early age. Although the greater likelihood that Black and Latino students are from lower socioeconomic and less well-educated households are clearly major risk factors in their school development, these risk factors may be compounded by exposure to subtle stereotypes and forms of bias. Soon after school entry, teachers judge African American (and in some studies, Latino) children less favorably than their White and Asian American counterparts and hold lower expectations for their academic abilities and futures. They have less supportive relationships with their teachers and, at the same time, appear to be more sensitive to them. Intertwined with these factors are patterns in which African American students are disproportionately referred for special education placements and for disciplinary sanctions.

Although only a small proportion of early elementary school children have reported personal experiences with discrimination based on their racial group membership (in the few studies that have examined this), experimental research by Bigler and colleagues suggests that children attend to very subtle cues from teachers in determining their social standing within the classroom (who the teacher rewards; who is chosen for special privileges). By 6 – 10 years of age, all children are aware that others hold negative stereotypes about the intellectual abilities of ethnic minority groups in the U.S., and awareness of social stereotypes appears to depress performance on evaluation tasks as early as first grade. Taken together, these findings suggest that ethnic minority youth, especially those from lower socioeconomic backgrounds, may encounter an educational environment that is very subtly distinct in terms of messages they receive about themselves as learners, than that encountered by European American and Asian youth. Although it may not be the case that these differences are due to racial bias that teachers and other administrators hold, per se., these sorts of subtle differences in the daily micro-

social interactions students have in school consequences may have long term consequences for students academic engagement and performance.

The research literature on the nature of racial bias that ethnic minority youth experience in school is small and quite fragmented, however. Although substantial interest in teacher differential treatment, stereotypes, and teacher expectancies is evidenced in the literature from the 1970's and 1980's, by the later 1990's this line of research appears to have been largely abandoned in favor of a focus on understanding family, socioeconomic, and early cognitive explanations for gaps in school readiness and achievement along racial/ethnic lines.

Accordingly, within the past decade or so, a very small number of studies have investigated any one of the topics covered in this brief review and even fewer have focused on the experiences of early elementary school youth. Moreover, what is needed is an integrated, rather than a piece-meal, approach to understanding the ways in which racial bias may impede ethnic minority youths' early educational experiences that combines the conceptual and methodological strengths of existing studies (e.g., efforts to unpack the mechanisms through which, and conditions under which, teacher expectations influence youth) with approaches that utilize (a) analysis of phenomena at multiple levels (e.g., school, classroom, peer group, individual); (b) evaluation of phenomena from multiple perspectives (individual student; child, parent, peer), (c) multiple methodologies (observational assessment of classroom phenomena; teacher and child reports; experimental manipulations), (d) assessment of changes in relationship between phenomena over time.

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