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Parenting and Academic Achievement: Intergenerational Transmission of Educational Advantage

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Abstract

A growing body of research has examined how cultural capital, recently broadened to include not only high-status cultural activities but also a range of different parenting practices, influences children's educational success. Most of this research assumes that parents' current class location is the starting point of class transmission. However, does the ability of parents to pass advantages to their children, particularly through specific cultural practices, depend solely on their current class location or also on their class of origin? The authors address this question by defining social background as a combination of parents' current class location and their own family backgrounds. Using data from the Panel Study of Income Dynamics and its Child Development Supplement, the authors examine how different categories of social background are related to parenting practices and children's academic achievement. The results offer novel insights into the transmission of class advantage across generations and inform debates about the complex processes of cultural reproduction and cultural mobility.

Keywords

social class, cultural capital, parenting, academic achievement

Ample research has documented the importance of family background for children's educational outcomes, but the processes through which parents exert their influence continue to be debated. Cultural capital, which in recent decades has been broadened to include not only high-status cultural activities but also a range of different parenting practices, presents one avenue for understanding how parents transmit advantages to their children (for a recent review, see Lareau and Weininger 2003). Bourdieu proposed that cultural capital is acquired primarily through childhood socialization and is a key factor in the reproduction of social class inequality (Bourdieu 1973; Bourdieu and Passeron 1977). Other scholars, however, have suggested that cultural capital may be acquired throughout the life course and can play a role in social mobility (DiMaggio 1982).

While a growing body of research has focused on adjudicating between cultural reproduction and cultural mobility arguments, the crucial question of the *intergenerational* transmission of class inequality has not been adequately addressed. In previous research, parents' current class location

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is assumed to be the starting point of class transmission. If parents have a certain amount of education, income, and/or occupational status, they are considered to be middle class and are expected to engage in specific cultural practices that will facilitate their children's educational success. However, not all parents who are currently middle class grew up middle class. The same holds for those who are currently working class. Does the ability of parents to pass advantages to their children, particularly through specific cultural practices, depend solely on their current class location or also on their class of origin?

To address this question, we define social background to reflect parents' current class location as well as their class of origin, producing four social class categories: stable middle, new middle, new working, and stable working class. Using data from the Panel Study of Income Dynamics (PSID) and its Child Development Supplement (CDS), we explore how these different categories of social background are related to parenting practices and children's academic achievement. Presented results offer novel insights into the transmission of class advantage across generations and inform debates about the complex processes of cultural reproduction and cultural mobility.

LITERATURE REVIEW

Cultural Reproduction and Cultural Mobility

Among the different strains of reproduction theory (e.g., Bowles and Gintis 1976; Collins 1979), the work of Pierre Bourdieu has gained unique prominence in the sociology of education (Bourdieu 1973; Bourdieu and Passeron 1977). Bourdieu argued that cultural capital is acquired primarily at an early age within the family, where children develop specific "linguistic and cultural competencies" and "familiarity with culture" (Bourdieu 1973:494). Since cultural capital is beneficial (or perhaps even necessary) for school success, children from upper-class families who possess the appropriate cultural resources will perform well and take advantage of educational opportunities. Working-class children, who lack cultural capital, on the other hand, will not be as successful. Since family is the key site of the transmission of cultural capital, this argument implies a strong relationship between cultural capital and the class of origin.

In contrast to the cultural reproduction argument, DiMaggio (1982) proposed a cultural mobility model. Drawing on Weber's (1968) work on status cultures, DiMaggio shifted the lens from thinking about "status group membership" to focusing on "status culture participation." This subtle but important shift reconceptualizes status "as a cultural process rather than as an attribute of individuals" (DiMaggio 1982:190). An individual can acquire familiarity with the dominant culture in the home and will be rewarded for it. However, family upbringing is only one avenue, and perhaps not even the most important one, for acquiring cultural capital. Individuals can also acquire cultural capital throughout the life course (see also Aschaffenburg and Maas 1997). This would suggest that one's family background is only partially related to cultural capital.

Cultural reproduction and cultural mobility arguments do not differ only with respect to where cultural capital is acquired (in the early childhood family context or throughout the life course) but also in terms of who is likely to benefit from it. Bourdieu's writings are commonly interpreted as arguing that children from more advantaged backgrounds will be the primary beneficiaries of specific cultural practices (e.g., Aschaffenburg and Maas 1997; De Graaf, De Graaf, and Kraaykamp 2000; DiMaggio 1982). While working class children may acquire some knowledge and skills necessary to do well in school, they are not likely to learn as quickly or acquire the "natural familiarity" with schooling practices. Moreover, Bourdieu (1973:506) proposed that "the value of the diploma . . . depends on the economic and social values of the person who possesses it," implying that the rewards for specific actions depend on the social status of the actor. Some recent studies have provided support for this argument, showing, for example, that African American and less socioeconomically advantaged students receive lower educational returns for their cultural capital than do their more advantaged peers (Roscigno and Ainsworth-Darnell 1999).

The cultural mobility argument, on the other hand, would propose that at the very least everyone will benefit equally from the possession of cultural capital, and it is even possible that students from less advantaged families will benefit more. For instance, Aschaffenburg and Maas (1997) reported that cultural capital acquired at different points throughout the life course is

related to educational success, suggesting that cultural capital is beneficial even when not transmitted in the home. Moreover, several studies have reported significant interactions between cultural capital and family background, indicating that less advantaged children are more likely to benefit from the possession of cultural capital (De Graaf et al. 2000; DiMaggio 1982; Dumais 2006). This pattern may emerge because working-class children with cultural capital "stand out" to teachers and are perceived as fitting well within the culture of the school (Dumais 2006; Lareau 1987). It is also possible that cultural capital serves as an "extra asset" for less advantaged children that can narrow the gap between home environment and school and help children acquire competencies and skills that are rewarded by educational institutions (De Graaf et al. 2000).

Cultural Capital and Parenting

Bourdieu was vague in his original formulation of cultural capital, which has led to a proliferation of numerous, and sometimes contradictory, definitions (Lamont and Lareau 1988). In educational research, the dominant conception of cultural capital draws on Weber's notion of "elite status cultures" and defines cultural capital in terms of "high-status" cultural activities, such as theater and museum visits, and knowledge and appreciation of arts and literature (for a recent review, see Lareau and Weininger 2003). This definition has been critiqued on many grounds including its being too narrow, inaccurately translating Bourdieu's arguments to the U.S. context, and omitting concerns about symbolic domination and cultural exclusion (e.g., Kingston 2001; Lamont and Lareau 1988; Lareau and Weininger 2003).

A different interpretation of cultural capital has emerged from the work of George Farkas and his colleagues (1990). Drawing on Swidler's (1986) conception of culture as a "tool kit," these authors focused on specific sets of skills and habits, as opposed to tastes and preferences, and thus defined cultural capital in terms of "informal academic standards by which teachers reward more general skills, habits, and styles" (Farkas et al. 1990:127). They measured cultural capital by indicators such as school behaviors and academic habits and showed that the teacher's judgment of students' work habits is a crucial predictor of academic success (even more so than cognitive performance on basic skills and course work mastery). Following this effort to align the definition of cultural capital with cultural dispositions rewarded in the educational system, several recent studies have examined the effects of parental reading on children's academic success. They found that reading—not highbrow cultural tastes and activities—enhances students' educational outcomes (Crook 1997; De Graaf et al. 2000; Sullivan 2001).[1] These findings support earlier arguments regarding the importance of creating a home environment that fosters academic motivation and skills (e.g., Teachman 1987).

Moreover, recent work by Lareau (2002, 2003) has combined different aspects of parenting into coherent parenting styles. Lareau argued that working-class parents engage in an "accomplishment of natural growth" style of parenting, which allows children to grow up in a more spontaneous manner and gives schools the primary responsibility for developing children's cognitive skills. Middle-class parents, in contrast, engage in a "concerted cultivation" style of parenting, which involves a deliberate cultivation of children's skills and talents. Parents accomplish this through practices such as enrolling children in multiple organized leisure activities, engaging them in discussion, reasoning with them, and intervening in institutions (e.g., schools) on their behalf. Several studies aiming to quantitatively capture this complex set of processes have reported a positive relationship between concerted cultivation and children's academic achievement (Bodovski and Farkas 2008; Cheadle 2008).

Although concerted cultivation broadens earlier definitions of cultural capital, it only implicitly considers parents' educational expectations. Middle-class parents presumably engage in concerted cultivation because they want *and* expect their children to do well in school and advance through the educational system. Parents' educational expectations are thus an integral, although implicit, part of parenting practices. When discussed in the previous literature, educational expectations are typically a part of the status attainment tradition (e.g., Morgan 2005; Reynolds et al. 2006), not the cultural capital tradition. However, Barone (2006) has recently argued for the inclusion of expectations in the studies of cultural capital, and a few studies in the cultural capital tradition have considered educational and occupational expectations (Dumais 2002, 2006; McClelland 1990). These studies have defined

expectations as an expression of habitus, following Bourdieu's (1990:55) conception of habitus as deeply internalized dispositions that generate "thoughts, perceptions, expressions, and actions." Following this definition, habitus is related to cultural capital, and some have suggested that "habitus lies beneath cultural capital generating its myriad manifestations" (Reay 2004:435-36). Considering parents' educational expectations should thus be as important as examining specific parenting practices (such as concerted cultivation or taking children to concerts and museums) for understanding the transmission of class advantage across generations.

Transmission of Advantage across Generations

Whether studies support cultural reproduction or cultural mobility arguments or employ broad or narrow definitions of cultural capital, they tend to begin with parents' current social class location as the starting point of class transmission. Parents are considered to be middle class or working class, or occupy a specific location in the socioeconomic status hierarchy, based on their current occupation, education, and/or income. However, as social mobility research has shown, a certain proportion of individuals move up or down the social class hierarchy (for a recent review, see Beller and Hout 2006). Not all currently middle-class parents have grown up middle class. Thus, some middle-class parents have experienced a lifetime of socially valued cultural transmissions, while others have not. Does that have any consequences for their ability to facilitate their children's academic success, particularly through specific parenting practices?

To address this question, we conceptualize parents' social class location as a combination of their current class location and their class of origin. This produces four social class categories: stable middle, new middle, new working, and stable working class. We then examine whether these social class categories are related to parenting practices and children's academic achievement. Growing up in a specific class context will not teach individuals particular parenting styles. Indeed, the "cultural logics" of child rearing are historically contingent. Middle-class parents who are practicing concerted cultivation today most likely did not grow up shuffled from activity to activity, as this intensive form of parenting is a relatively recent phenomenon. However, each time period has a "dominant set of cultural repertoires about how children should be raised," and middle-class parents are in a better position to shift their behaviors and adapt to new demands (Lareau 2003:4-5). They have the necessary skills, habits, and dispositions that enable them to respond to the changes in expectations over time. The crucial question we are asking is whether that adaptability and responsiveness to changing definitions of parenting rests with their own location in the social structure or their social origins.

By exploring how this more complex definition of social background is related to parenting practices and children's outcomes, this study provides insights into previously unexplored patterns of cultural reproduction and cultural mobility across generations. Furthermore, it provides an avenue for understanding variation among middle-class and working-class parents. As Lareau (2003) described, some middle-class parents are not effective in their strategies; that is, they do not gain the expected advantages for their children. In addition, studying racial differences in parents' abilities to comply with educators' requests, Lareau and Horvat (1999:39) proposed that possessing cultural capital is not enough; parents need to activate cultural capital and "the way in which it [cultural capital] is activated influences its value." When parents activate their cultural capital and whether they are effective in producing desirable results may at least in part rest on where they come from.

DATA AND METHOD

We rely on data from the PSID and its CDS. The PSID is a longitudinal panel study of a representative sample of U.S. individuals and their families, originating in 1968. The sample has been followed on an annual basis, and biannually since 1997. In 1997, the PSID supplemented its standard data collection with additional information regarding 0- to 12-year-old children and their parents, and it reported this information in the CDS. The CDS sample was reinterviewed in 2002-2003 and again in 2007-2008. Jointly, PSID and CDS allow researchers to construct three-generation family histories, including children, their parents, and their grandparents. These data sets are particularly conducive to our inquiry since PSID includes parents' and grandparents' social

backgrounds, while CDS includes relevant indicators of parenting practices and children's academic outcomes. Our analyses include children who were between 6 and 14 years of age in either the 1997 or 2002-2003 CDS follow-up. We combine the two survey years in order to maximize sample size. For children who were within the age range in both survey years, we code their responses based on the first survey period. Children in the analytic sample were on average 9 years old at the time of the survey.[2]

Variables

Key variables of interest include academic achievement, parenting, and social background. *Academic achievement* is measured by students' math and reading scores from the Revised Woodcock-Johnson Test of Achievement (WJ-R), a well-established measure of children's academic abilities. The reading score is based on the composite score of letter–word recognition and passage comprehension. The math score is based on the applied problems component of WJ-R.[3] All three assessments are available for children 6 years of age or older. WJ-R test scores were normed by the PSID programmers to reflect a child's math and reading abilities in comparison to the national average for the child's age (Institute for Social Research 2009).[4]

Following previous studies, test scores are considered to be a measure of academic achievement, or what others have variously termed academic ability, cognitive skills, or human capital. It is important to note that previous research has tended to define test scores in contrast to cultural capital (for a review, see Farkas 2003). Quantitative studies in the cultural capital tradition, thus, often examine relationships between cultural capital and grades or teachers' ratings while controlling for test scores (e.g., DiMaggio 1982; Dumais 2002, 2006; Farkas et al. 1990). When studies in this tradition use test scores as outcomes, they conceptualize them as indicators of cognitive skills (e.g., Bodovski and Farkas 2008; Cheadle 2008; Farkas and Beron 2004; Sullivan 2001). Some scholars have questioned the distinction between cultural capital and cognitive skills (Lareau and Weininger 2003), while others have criticized a broad definition of cultural capital that subsumes academic skills (Kingston 2001). This debate rests on fundamental disagreements about the definition of cultural capital, which cannot be resolved in this study, nor perhaps in the near future (see also Sullivan 2007).

Parenting. We define parenting broadly to include educational expectations, participation in high-status cultural activities (i.e., the traditional measure of cultural capital), and concerted cultivation. Educational expectations are coded as a dummy variable indicating whether parents expect their children to obtain a bachelor's degree or higher. Participation in high-status cultural activities is represented by a dummy variable indicating whether children have visited a museum or attended a musical concert. The PSID question specifically references attending these events "with a family member," and given that children in our sample are young, their involvement in these events is most likely dependent on parents' preferences for cultural participation.

Finally, we follow Lareau (2003) in defining concerted cultivation as a style of parenting associated with the middle class that deliberately cultivates children's skills and talents. Lareau highlighted three aspects of concerted cultivation, which we combine into our concerted cultivation measure: child's participation in organized activities (measured by whether a child participated in extracurricular activities), parental involvement with the child's school (including volunteering at the school, having an informal talk with the child's teacher, having an informal talk with the child's principal, attending school events, and attending PTA meetings), and parent–child discussion (how often parents talk to children about their interests, school work, and school experiences). We combine indicators of each of those aspects of parenting into a single concerted cultivation measure using factor analysis and use the resulting factor scores as an independent variable in regression models. High-status cultural activities are not considered a component of concerted cultivation since they are both theoretically and empirically distinct.[5]

Social background. This variable is coded into four categories based on mother's and grandmother's education: stable middle class (mother and grandmother are highly educated), new middle class (mother is highly educated but grandmother is not), new working class (grandmother is highly educated but mother is not), and stable working class (neither mother nor grandmother is highly educated). Whether a mother or a grandmother is defined as "highly educated" is based

on the distribution of educational attainment among their contemporaries. The "highly educated" category includes mothers and grandmothers who were 0.4 standard deviations above the mean of their respective educational attainment distributions. For mothers, this includes anyone with an associate's degree or higher; for grandmothers, this includes anyone with education beyond high school. It is important to note that based on this definition, being in the new working-class category does not imply that mothers are less educated than grandmothers; it only implies that mothers were positioned less advantageously in their educational distribution than grandmothers.

The cutoff of 0.4 standard deviations was chosen for both theoretical and practical reasons. Based on this definition, "highly educated" grandmothers are slightly less educated than "highly educated" mothers, which accounts for change over time in the proportion of individuals completing different credentials and the resulting necessity of recent generations to complete more years of schooling in order to preserve their relative position in the educational hierarchy. Moreover, the definition of "highly educated" individuals adopted in this study produces a large enough sample size in each category to allow for reasonably robust analyses. A definition based on 1 standard deviation above the mean is too restrictive, as it would include only grandmothers with bachelor's degrees or higher, leading to very small sample sizes in certain cells. This definition, however, produces the patterns of parenting and test scores similar to those in presented analyses (see Table A1 in the appendix).

In defining social background, we have focused on mothers because they tend to be the primary caregivers. This is especially the case for the grandmother's generation but holds even for the mother's. The gendered pattern of child care, in which mothers spend more time taking care of children than fathers do, is well documented (Monna and Gauthier 2008). Although fathers have increased their participation in child care activities over time, so have mothers (Gauthier, Smeeding, and Furstenberg 2004). In the United States, for example, fathers increased their participation in child care from 0.7 to 1.3 hours per day between 1965 and 1998, while mothers increased their involvement from 2.2 to 2.8 hours per day (Bianchi 2000). In a recent time-use survey, Willie (1995) reported that mothers attend to nearly two-thirds of all child care responsibilities in the household. Mothers and fathers also perform different types of child care tasks: Mothers spend more time alone with children, and they attend to physical care (e.g., bathing, feeding, and dressing) and tasks that have to be completed on a rigid timeline. Mothers also have more overall responsibility for managing care (Craig 2006). These statistics are illustrated in Lareau's (2003) ethnography, where mothers were the primary event coordinators, chaperones, discussion leaders, and advocates. Mothers were the ones who urged children to participate in activities, prepared them to ask proper questions in interactions with institutions, and intervened on their behalf in schools. Although we believe that focusing on mothers is theoretically justified, we have also considered using the highest of either the mother's or father's education. This alternative specification produces similar results, as would be expected from the virtually identical distributions of the key variables of interest presented in Table A1 in the appendix.

The final point worth addressing about our definition of social background is the focus on mothers' and grandmothers' education. Previous empirical research presents relatively little consensus regarding the definition of social class. In a 2008 volume edited by Lareau and Conley, different authors presented "differing, and conflicting, assessments of how to define social class," and the editors noted in the introduction that "the field may never reach a complete consensus around a single, 'standard' definition of class" (p. 15). Although a case is often made for defining class in terms of occupation, education is a theoretically more relevant dimension for understanding the particular processes examined in this study. Cultural capital (and cultural practices more broadly) operates within specific fields. Since our outcome of interest (children's test scores) is in the field of education, it is reasonable to define the key independent variable in relation to this field. Indeed, the association between cultural practices and education is well documented, and some scholars have used parental education as an indicator of cultural capital (e.g., Andres 2009; Bourdieu 1973; DiMaggio 1982). Moreover, standard occupational categories generally considered in stratification research (such as the Erikson-Goldthorpe-Portocarero, or EGP, schema) are not useful for examining cultural practices. For example, scholars relying on the EGP schema often combine professionals and managers, although Bourdieu (1973) showed that they had different degrees of cultural

capital. Some analysts have recently produced occupational categorizations that are better aligned with the distribution of cultural capital across occupations (e.g., Mohr and DiMaggio 1995). However, we are not able to use these measures because they would result in unmanageably small sample sizes given our intergenerational definition of class. Reliance on broad educational categories in this study likely introduces substantial within-group variation and reduces the precision of our estimates. If our analyses prove promising, future research could attempt to explore more nuanced definitions of class.

Control variables. We begin by including a set of demographic controls that are likely to be related to both parenting practices and children's academic achievement: gender (dummy for female), race/ethnicity (dummy variables for African Americans and other racial/ethnic groups), child's age at the time of the assessment, immigration status (whether the child was born outside of the United States), and mother's age when the child was born. Parenting practices may be related to other aspects of family life and access to resources, not only mother's education. A recent study of children's summer activities, for example, suggested that resources, such as money, time, and access to information regarding available activities, are crucial for understanding class differences in child-rearing practices (Chin and Phillips 2004; see also Lareau 1987). To capture these factors to the extent possible with data available in PSID, we control for family income (natural log), homeownership (whether the family owned a home), number of siblings, family structure (dummy variable denoting a two-parent household), mother's employment (dummy variable indicating whether the mother is not working),[6] and whether the child's father is more educated than the mother.

After restricting the sample to our age range and students with valid test scores, social background was missing in 2.5 percent of the cases, which were excluded from analyses, leading to our analytic sample of 2,543 students for reading analyses and 2,586 for math analyses. All analyses of parenting are conducted on the sample used for reading analyses. Considering this analytic sample, a small proportion of cases were missing for different control variables. To preserve these cases in analyses, we used multiple imputation. Our imputation procedure was based on creating five distinct data sets with imputed values, each of which was analyzed separately and then combined into the reported parameter estimates using PROC MIANALYZE in SAS (see Allison 2002). To maximize the accuracy of multiple imputation, all variables were used in predicting missing values. Descriptive statistics and parameter estimates were similar across the five imputed datasets.

RESULTS

Variation in Academic Achievement and Parenting

As Table 1 shows, academic achievement varies across students from different social backgrounds, as defined in this study.[7] Children from stable middle-class backgrounds perform higher in both reading and math than children from stable working-class families. These gaps are not only statistically significant but also of substantial magnitude—approximately three-quarters of a standard deviation. What is especially notable is the position of children from new middle-class and new working-class families. Students in both of these groups perform higher than students from stable working-class backgrounds and lower than students from stable middle-class backgrounds. This pattern of results implies that the mother's educational level, as well as her social background (i.e., her mother's educational level), is related to children's educational success.[8]

Moreover, descriptive results in Table 1 reveal significant differences in parenting practices across social background categories. As would be expected, differences in parenting are most pronounced between stable middle-class and stable working-class categories. Mothers from stable middle-class backgrounds engage most intensively in concerted cultivation, while those from stable working-class backgrounds engage the least—the gap between the two groups is approximately 1 standard deviation. Similarly, children from stable middle-class families are much more likely to participate in high-status cultural activities than those from stable working-class families. The same pattern is observed for educational expectations.

Of particular interest are parenting practices of the new middle-class and new working-class mothers, as those categories reflect situations in which mothers' current class locations differ from their class of origin. Table 1 shows that participation in high-status cultural activities and concerted cultivation for new middle-class

Table 1. Descriptive Statistics for Test Scores and Parenting, by Social Background

	Test scores		Parenting		
	Reading	Math	Concerted cultivation	High-status cultural activities	Parents expect bachelor's degree
	Mean (standard deviation)				
Social background					
Stable middle	115.061 (17.671)	115.619 (18.037)	0.609 (0.766)	0.908 (0.322)	0.883 (0.358)
New middle	111.513 (15.594)	113.407 (17.358)	0.392 (0.820)	0.859 (0.356)	0.813 (0.399)
New working	106.403 (17.310)	108.383 (16.420)	0.192 (0.856)	0.847 (0.365)	0.606 (0.495)
Stable working	102.182 (14.734)	102.577 (15.419)	−0.314 (0.924)	0.692 (0.436)	0.535 (0.471)
	Mean difference				
Comparisons					
Stable middle vs. stable working	12.879**	13.042**	0.923**	0.216**	0.348**
New middle vs. stable working	9.331**	10.830**	0.706**	0.167**	0.278**
New middle vs. stable middle	−3.548**	−2.212*	−0.217**	−0.049†	−0.070*
New working vs. stable middle	−8.658**	−7.236**	−0.417**	−0.061*	−0.277**
New working vs. stable working	4.221**	5.806**	0.506**	0.155**	0.071*

†$p < .10$. *$p < .05$. **$p < .01$ (two-tailed *t*-tests, adjusted for multiple comparisons).
Note: Concerted cultivation is a factor derived from factor analysis; high-status cultural activities and parents expect bachelor's degree are expressed as proportions.

Table 2. Descriptive Statistics for Selected Sociodemographic and Family Characteristics, by Social Background

	Mean (standard deviation)				Mean difference	
	Stable middle	New middle	New working	Stable working	New middle vs. stable working	New working vs. stable middle
Household income (ln)	2.064	1.789	1.350	1.032	0.757**	−0.714**
	(0.685)	(0.783)	(1.093)	(0.986)		
Two-parent household	0.815	0.734	0.591	0.588	0.146**	−0.224**
	(0.433)	(0.452)	(0.498)	(0.465)		
Home ownership	0.851	0.767	0.633	0.559	0.208**	−0.218**
	(0.397)	(0.432)	(0.488)	(0.469)		
Mother not working	0.231	0.162	0.314	0.282	−0.120**	0.083*
	(0.469)	(0.377)	(0.470)	(0.425)		
Mother's age	29.051	29.601	25.049	25.186	4.415**	−4.002**
	(5.195)	(4.986)	(5.416)	(5.503)		
Number of siblings	1.463	1.482	1.554	1.593	−0.111	0.091
	(1.122)	(1.138)	(1.295)	(1.000)		
N	443	517	331	1,252		

*$p < .05$. **$p < .01$ (two-tailed *t*-tests, adjusted for multiple comparisons).

mothers more closely reflects their current class location than their class of origin. Although new middle-class mothers lag slightly behind stable middle-class mothers on these measures, they are much further away from stable working-class mothers (i.e., their class of origin). On the other hand, new working-class mothers preserve practices from their class of origin to a much greater extent than would be expected given their current class location. This is especially the case for high-status cultural activities: New working class mothers are only 6 percentage points behind stable middle-class mothers and almost 16 percentage points ahead of stable working-class mothers.

Similarly, educational expectations of new middle-class mothers more closely resemble those of stable middle-class mothers (i.e., their current class location). The difference between new middle-class and stable middle-class mothers is still statistically significant but of much smaller magnitude than the difference between new middle-class and stable working-class mothers (approximately one-quarter). Mobility, however, seems to work both ways. The educational expectations of new working-class mothers are closer to those of stable working-class mothers (i.e., their current class location) than to those of stable middle-class mothers (i.e., their class of origin). Bourdieu (1973) proposed that expectations reflect "internalizations of objective probabilities of success," which is supposed to occur largely during childhood. When parents change class locations, however, they seem to adjust their expectations accordingly.

Exploring Variation in Parenting by Social Background

While parenting varies across social background categories, families in these categories differ along multiple dimensions. Table 2 reports descriptive results for selected sociodemographic and family characteristics by social background and provides comparisons of mothers who have changed class locations to their "stable" counterparts. In many respects, new middle-class mothers appear advantaged in relation to stable working-class mothers. Upwardly mobile mothers, for example, seem to have more resources to draw on: They are more likely to live in two-parent households, own homes, work, and have higher household incomes than stable working-class mothers. They have also had children at older ages than did stable working-class mothers. The new working-class mothers follow the opposite pattern: They have fewer family resources to draw on and have had children at younger ages than stable middle-class mothers.

To consider whether sociodemographic and family differences explain variation in parenting practices across social background categories, Table 3 reports logistic, for educational expectations and high-status cultural activities, and ordinary least squares (OLS), for concerted cultivation, regression analyses. Model 1 reports the baseline differences, while Model 2 includes all sociodemographic and family characteristics described in the Data and Method section. Complete results of these models are reported in Table A2 in the appendix. Table 3 focuses on the key comparisons of interest by reporting only coefficients for different social background categories. To consider all relevant comparisons, we ran the models twice, using different reference categories.

As would be expected, sociodemographic and family characteristics partially explain the relationship between social class background and parenting practices. These results provide some insights into the differential experiences and resources of mothers in different class categories, which can facilitate or hinder adoption of specific parenting practices. At the same time, these results largely corroborate the descriptive patterns. New middle-class mothers closely resemble stable middle-class mothers (i.e., their current class location). Differences between the two groups were originally small in Table 1 and are no longer statistically significant after controls. Moreover, new middle-class mothers have higher educational expectations for their children, participate more in high-status cultural activities, and engage more in concerted cultivation than stable working-class mothers (i.e., their class of origin).

The results for new working-class mothers are more complex. After controls, new working-class mothers' educational expectations resemble their destination class, while their high-status cultural activities reflect their class of origin. Moreover, with respect to concerted cultivation, new working-class mothers do not resemble either their class of origin or their class of destination. Instead, they engage more in concerted cultivation than stable working-class mothers but less than stable middle-class mothers. As was the case for descriptive results, regression models of parenting practices show mixed patterns for new working-class mothers.

Presented analyses illuminate some of the mechanisms through which mothers in different class locations may be able to mobilize knowledge and resources to facilitate a specific set of parenting practices. It is important to note, however, that these analyses do not explore all possible mechanisms nor do they account for all potentially confounding factors. As such, they do not present a causal argument but a description of variation in parenting across social background categories and some potential sources of those differences. Previous research has suggested that education is related to a host of outcomes and activities (Kingston et al. 2003), although it has rarely established causal relationships. At least some recent studies, however, have suggested that mother's educational attainment is causally related to parenting practices (Attewell and Lavin 2007; Domina and Roksa 2010).

Social Background, Parenting, and Academic Achievement

Even if parenting practices vary across social background categories, an important question is whether those differences are related to gaps in children's academic achievement. Table 4 begins with a baseline OLS model reporting gaps in children's academic achievement across social background groups. The next model indicates that parenting practices are related to academic achievement: Higher parental expectations, participation in high-status cultural activities, and a concerted cultivation style of parenting all have a positive relationship with children's academic achievement.[9] However, while measures of parenting are related to academic achievement, they only partially explain the relationship between social background and children's test scores (see also Bodovski and Farkas 2008; Cheadle 2008; Sullivan 2001). After including parenting practices, coefficients for social background decrease by approximately one-half (ranging from 40 percent to 52 percent) but remain statistically significant. Parenting is thus an important contributor to the social class gaps in academic achievement, but it is not sufficient to explain those gaps.[10]

Although parenting may not completely explain the relationship between social background and academic achievement, it can be insightful to consider these findings in the context of other family characteristics. Model 3 includes a range of sociodemographic and family characteristics, showing the expected patterns. Girls, for example, have higher reading scores and lower math scores than boys, while African American children have lower academic achievement in both subjects than their white peers. Moreover,

Table 3. Regression Analyses Examining the Relationship between Social Background and Parenting (selected results)

	Concerted cultivation		High-status cultural activities		Parents expect bachelor's degree	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
	Ordinary least squares regression		Logistic regression		Logistic regression	
Social background (reference: stable middle)						
New middle	−0.217**	−0.077	−0.476*	−0.127	−0.554**	−0.363†
	(0.055)	(0.051)	(0.202)	(0.209)	(0.173)	(0.181)
New working	−0.418**	−0.187**	−0.579**	−0.193	−1.593**	−1.216**
	(0.061)	(0.060)	(0.212)	(0.228)	(0.177)	(0.187)
Stable working	−0.924**	−0.530**	−1.476**	−0.838**	−1.884**	−1.406**
	(0.047)	(0.049)	(0.163)	(0.187)	(0.146)	(0.166)
Social background (reference: stable working)						
Stable middle	0.924**	0.530**	1.476**	0.838**	1.884**	1.406**
	(0.047)	(0.049)	(0.163)	(0.187)	(0.146)	(0.166)
New middle	0.706**	0.453**	1.000**	0.711**	1.330**	1.043**
	(0.047)	(0.047)	(0.150)	(0.171)	(0.126)	(0.147)
New working	0.506**	0.343**	0.897**	0.645**	0.291*	0.190
	(0.054)	(0.051)	(0.165)	(0.176)	(0.131)	(0.144)
Controlling for sociodemographic and family characteristics	No	Yes	No	Yes	No	Yes

Note: Standard errors are in parentheses. N = 2,543.
†$p < .10$. *$p < .05$. **$p < .01$.

Table 4. Ordinary Least Squares Regression Models Predicting Children's Academic Achievement

	Reading			
	Model 1	Model 2	Model 3	Model 4
Social background (reference: stable working)				
Stable middle	12.879**	7.353**	7.790**	5.401**
	(0.824)	(0.865)	(0.888)	(0.895)
New middle	9.330**	5.002**	5.811**	3.802**
	(0.828)	(0.837)	(0.867)	(0.868)
New working	4.221**	2.032*	2.558**	1.693†
	(0.981)	(0.955)	(0.949)	(0.937)
Parenting				
High-status cultural activities		3.444**		1.666*
		(0.791)		(0.788)
Concerted cultivation		2.148**		0.986*
		(0.369)		(0.390)
Parents expect bachelor's degree		8.041**		6.589**
		(0.739)		(0.725)
Sociodemographic and family controls				
Female			2.333**	2.036**
			(0.595)	(0.583)
African American			−5.579**	−4.476**
			(0.917)	(0.908)
Other non-white racial/ethnic groups			−5.397**	−4.604**
			(1.197)	(1.180)
Age			0.114	0.084
			(0.157)	(0.153)
Mother's age			0.242**	0.196**
			(0.060)	(0.059)
Immigrant			3.662*	2.672†
			(1.498)	(1.489)
Number of siblings			−1.850**	−1.480**
			(0.278)	(0.275)
Two-parent household			1.087	0.788
			(0.827)	(0.814)
Father higher educated			2.053**	1.643*
			(0.706)	(0.692)
Household income (ln)			1.909**	1.379**
			(0.450)	(0.441)
Mother not working			−0.355	−0.713
			(0.731)	(0.710)
Home ownership			0.949	0.401
			(0.807)	(0.786)
Constant	102.182**	96.169**	95.175**	92.751**
	(0.473)	(0.820)	(2.157)	(2.208)
R^2	0.1020	0.1889	0.2026	0.2395
N	2,543	2,543	2,543	2,543

continued

Table 4. (Continued)

	Math			
	Model 1	Model 2	Model 3	Model 4
Social background (reference: stable working)				
Stable middle	13.043**	7.385**	7.707**	5.132**
	(0.720)	(0.896)	(0.907)	(0.916)
New middle	10.830**	6.508**	6.750**	4.666**
	(0.732)	(0.868)	(0.891)	(0.892)
New working	5.807**	3.438**	3.776**	2.734**
	(1.021)	(0.987)	(0.976)	(0.965)
Parenting				
High-status cultural activities		2.930**		1.627*
		(0.820)		(0.810)
Concerted cultivation		2.660**		1.439**
		(0.388)		(0.399)
Parents expect bachelor's degree		7.267**		6.199**
		(0.726)		(0.727)
Sociodemographic and family controls				
Female			−3.212**	−3.537**
			(0.612)	(0.600)
African American			−7.337**	−6.133**
			(0.950)	(0.940)
Other nonwhite racial/ethnic groups			−6.660**	−5.737**
			(1.227)	(1.210)
Age			0.721**	0.675**
			(0.159)	(0.155)
Mother's age			0.347**	0.295**
			(0.061)	(0.060)
Immigrant			4.018**	3.274*
			(1.541)	(1.536)
Number of siblings			−1.220**	−0.846**
			(0.286)	(0.282)
Two-parent household			−0.935	−1.241
			(0.848)	(0.823)
Father higher educated			0.423	0.040
			(0.728)	(0.713)
Household income (ln)			1.933**	1.365**
			(0.473)	(0.467)
Mother not working			0.685	0.307
			(0.757)	(0.743)
Home ownership			1.476†	0.934
			(0.825)	(0.803)
Constant	102.577**	97.513**	90.797**	89.035**
	(0.237)	(0.842)	(2.201)	(2.263)
R^2	0.1046	0.1823	0.2076	0.2426
N	2,586	2,586	2,586	2,586

Note: Standard errors are in parentheses.
†p <.10. *p < .05. **p < .01.

higher family income is associated with higher test scores, while having more siblings is associated with lower test scores. All of the family and background characteristics considered together decrease the coefficients for social background by approximately the same amount as parenting practices. Another way of comparing parenting with other family characteristics is to consider the proportion of variance explained by each. Ten percent of variance in reading test scores is associated with social background. Including parenting measures essentially doubles the explanatory power of the regression model (increasing R^2 to 19 percent). A similar increase in R^2 is obtained by including sociodemographic and family characteristics in Model 3. Thus, while parenting may not fully explain the association between social background and academic achievement, it seems to at least be an important factor worthy of consideration.

The final model in Table 4 includes parenting measures as well as other family attributes and demographic characteristics. The first notable finding is that parenting practices continue to be related to academic achievement, even net of sociodemographic and family controls. Moreover, the coefficients for social background categories, while reduced, remain statistically significant as well. To facilitate an evaluation of differences in academic achievement between children whose mothers did and did not change class locations, Table 5 presents the same set of models as Table 4 but uses the stable middle-class category as the reference group.

After controlling for parenting practices and other family characteristics, children from new middle-class families have closed the gap in academic achievement with children from stable middle-class families. This outcome results from a combination of differences in parenting and other family characteristics—both are needed to eliminate the gap for reading test scores and either is sufficient to render the math gap no longer statistically significant. In addition, children from new middle-class families continue to have a notable advantage in academic achievement in comparison to children from stable working-class backgrounds. Upwardly mobile mothers are thus able, through parenting and other family resources, to provide advantages to their children akin to those provided by stable middle-class mothers, resembling their destination class and moving ahead of their class of origin.

While distance from the class of origin and resemblance to the class of destination is a positive development for new middle-class children, it is not so for new working-class children. Children from new working-class backgrounds have significantly lower test scores than children from stable middle-class backgrounds, even after controlling for parenting practices and other family characteristics. However, they do not entirely resemble the stable working class either: Children from new working-class backgrounds have significantly higher math scores and marginally significant higher reading scores than children from stable working-class backgrounds. New working-class mothers are thus able to preserve some of the advantages from their class of origin, which keeps their children's academic achievement above that of the stable working-class. However, children from new working-class families lose ground in academic achievement when compared to children from their class of origin (i.e., the stable middle-class category).

Are Parenting Practices Equally Rewarded for All Groups?

Although certain parenting practices may be more prevalent among the middle class, working-class families engage in them as well. This raises the question of whether all children benefit equally from specific parenting practices. Table 6 shows the results of the final model, including all variables of interest, for students from different social backgrounds. The first finding that stands out is that educational expectations have a similar relationship to test scores for all groups (while coefficients vary slightly across groups, *t*-tests for significance between groups reveal no differences at $p < .05$). Thus, regardless of how educational expectations are developed, and whether they reflect the class of origin or the class of destination, they are positively associated with children's academic achievement.

The interpretation of the patterns for the other two parenting measures is not as straightforward. Participating in high-status cultural activities has a statistically significant positive relationship to academic achievement for children from new working-class and stable working-class backgrounds. This finding supports the cultural mobility argument, implying that high-status cultural practices are more beneficial for less advantaged groups (see also DiMaggio 1982; Dumais 2006). In contrast, concerted cultivation has a statistically significant positive relationship with academic

Table 5. Social Class Differences in Academic Achievement, Using an Alternative Reference Category, Selected Results from Ordinary Least Squares Regression Models Predicting Children's Academic Achievement

	Reading			
	Model 1	Model 2	Model 3	Model 4
Social background (reference: stable middle)				
New middle	−3.549**	−2.352*	−1.979*	−1.599†
	(0.455)	(0.915)	(0.926)	(0.906)
New working	−8.658**	−5.321**	−5.232**	−3.708**
	(1.193)	(1.066)	(1.085)	(1.075)
Stable working	−12.879**	−7.353**	−7.790**	−5.401**
	(0.679)	(0.865)	(0.888)	(0.895)
Other variables included				
Parenting	No	Yes	No	Yes
Sociodemographic and family controls	No	No	Yes	Yes
	Math			
Social background (reference: stable middle)				
New middle	−2.212*	−0.877	−0.957	−0.467
	(0.989)	(0.950)	(0.953)	(0.934)
New working	−7.236**	−3.945**	−3.931**	−2.399*
	(1.125)	(1.010)	(1.115)	(1.097)
Stable working	−13.043**	−7.385**	−7.707**	−5.132**
	(0.848)	(0.896)	(0.907)	(0.916)
Other variables included				
Parenting	No	Yes	No	Yes
Sociodemographic and family controls	No	No	Yes	Yes

Note: Standard errors are in parentheses. N = 2,543 for reading, and N = 2,586 for math.
†$p < .10$. *$p < .05$. **$p < .01$.

achievement for children from stable middle- and new middle-class backgrounds, supporting the social reproduction argument.

While coefficients for different parenting practices are statistically significant for some groups of children and not others, *t*-tests comparing coefficients across groups reveal only a few statistically significant differences. The coefficient for high-status cultural activities for new working-class children is significantly different from that for stable middle-class children in reading but not math. Similarly, the difference in the coefficient for high-status cultural activities between stable working-class children and stable middle-class children is only marginally significant ($p <$ .10), and, again, only for reading. The only statistically significant contrast at the $p < .05$ level for concerted cultivation is between children from stable middle-class and stable working-class backgrounds in math. Part of the challenge in identifying significant differences in cross-group comparisons are large standard errors for all but stable working-class groups. Due to small cell sizes, only relatively large differences between groups become statistically significant. Although not definitive in supporting either the social reproduction or the social mobility hypothesis, the results raise the possibility that specific parenting practices may have differential consequences for academic achievement of different groups.

Table 6. Ordinary Least Squares Regression Models Predicting Children's Academic Achievement, by Social Background (selected results)

	Reading			
	Stable middle	New middle	New working	Stable working
High-status cultural activities	−2.813	−0.963	4.957*	2.518**
	(2.726)	(2.234)	(2.460)	(0.919)
Concerted cultivation	2.599*	2.217*	0.035	0.485
	(1.218)	(0.972)	(1.174)	(0.467)
Parents expect bachelor's degree	8.492**	7.204**	4.409*	6.607**
	(2.409)	(1.869)	(1.867)	(0.887)
Include sociodemographic and family controls	Yes	Yes	Yes	Yes
N	443	517	331	1,252
	Math			
High-status cultural activities	−0.913	1.070	2.995	1.940*
	(2.606)	(2.432)	(2.320)	(0.963)
Concerted cultivation	3.589**	2.738**	1.370	0.545
	(1.076)	(1.057)	(1.121)	(0.495)
Parents expect bachelor's degree	6.638**	9.188**	5.009**	5.647**
	(2.281)	(2.033)	(1.725)	(0.927)
Include sociodemographic controls	Yes	Yes	Yes	Yes
N	443	517	331	1,252

Note: Standard errors are in parentheses.
*$p < .05$. **$p < .01$.

Examining these patterns with larger samples and other measures of parenting requires more attention in future research.

CONCLUSION

We conceptualize social background as a combination of parents' current class location and their class of origin. This approach produces four social background categories: stable middle, new middle, new working, and stable working class. The academic achievement of children varies across these social background categories, with children from stable middle-class backgrounds having the highest levels of academic achievement and those from stable working-class families having the lowest. The academic performance of children from families with discrepant current and past class locations (new middle and new working) is positioned in between the two stable categories.

Some of the social class differences in academic achievement can be understood as a reflection of parenting practices and family resources. Children from new middle-class families perform as well on measures of academic achievement as children from stable middle-class families after considering parenting practices and other family characteristics. Upwardly mobile mothers are thus able to acquire and mobilize resources and specific parenting practices to close the gap between their children and those from stable middle-class families. Mothers in the new working-class category are not as fortunate. They are able to preserve some of the advantages of their class of origin, and their children have higher academic achievement than those from stable working-class backgrounds. At the same time, children from new working-class families lose ground relative to children from stable middle-class families. Parenting practices and other family circumstances help to explain some but not all of the differences in academic achievement between children from new working-class and either stable working- or stable middle-class families.

Overall, the presented results support the cultural mobility argument—cultural capital is not only transmitted during childhood within the family but can be acquired over the life course (Aschaffenburg and Maas 1997; DiMaggio 1982). For example, mothers who are currently middle class but who did not grow up in middle-class families nevertheless adopted concerted cultivation forms of parenting and participated in high-status cultural activities at high rates. In addition, parenting practices and children's outcomes often seem to more closely resemble their class of destination than their class of origin, indicating that the achieved status (in this case, mothers' own educational attainment) has notable implications for parenting practices and children's outcomes. And while parenting and social class are related, parenting only partially mediates the relationship between social class and children's academic achievement, as would be predicted by the cultural mobility model. Interaction results, although not definitive, also lean in the direction of the cultural mobility argument, at least with respect to educational expectations, which benefit all children equally.

Neither the cultural reproduction nor the cultural mobility argument in their current forms, however, can anticipate findings regarding the new working-class families. New working-class mothers do not fully replicate the patterns of their class of origin, as might be predicted by cultural reproduction, or their class of destination, as might be expected by cultural mobility. These families seem to occupy a uniquely contradictory location, in some ways more closely resembling stable middle-class families and in others stable working-class families. Similarly, the academic achievement of children from new working-class backgrounds is between that of children from stable working-class and stable middle-class categories. These patterns imply that upward and downward mobility are distinct social processes, not just mirror images of each other. While scholars in the social reproduction tradition focus on the stability of class locations across generations (e.g., Bourdieu 1973, Lareau 2003), those in the cultural mobility tradition emphasize the value of cultural resources for upward mobility (e.g., Aschaffenburg and Maas 1997; DiMaggio 1982). Neither tradition anticipates or provides analytical tools for understanding the unique patterns associated with downward mobility.

The differential explanatory power of parenting and other family circumstances for academic achievement of new middle-class and new working-class children may in part reflect the context of our study. Education has long been viewed as a vehicle of upward mobility (Blau and Duncan 1967), and previous research has suggested that providing educational opportunities for women improves children's educational outcomes (Attewell and Lavin 2007). However, it is less clear how the downward educational mobility of parents may be related to children's academic performance. The answer may lie in the circumstances leading to downward mobility. While research on downward mobility is relatively limited, it implies that losing ground in the class hierarchy may often result from unforeseen circumstances such as divorce or economic shifts (e.g., see Newman 1999). New working-class mothers in this study did not necessarily complete less education than their own mothers, but they occupied a lower relative position in the educational hierarchy. Conducting future research to understand what personal and structural factors lead to the relative decline in educational standing of new working-class mothers may provide key insights into their parenting practices and their children's academic achievement.

More research is also needed to understand the mechanisms facilitating upward mobility. The research on social mobility has focused much more on documenting the extent of mobility (e.g., see the review by Beller and Hout 2006) than on understanding its origins. While the importance of education in the process of upward mobility is clear, it is less certain why some individuals use the educational system to achieve upward mobility while others do not. In an insightful ethnography of high school girls, Bettie (2002) suggested a range of possible factors leading to upward mobility, from family's differential investment of resources through which some children receive a higher quality of education than others, to sibling encouragement as well as opposition (e.g., defining oneself in opposition to a delinquent brother), and to a lack of identification with a working-class peer group (see also Reay, Crozier, and Clayton 2009). Mobility may also be facilitated by more structural factors, such as mentors, school contexts, and college-going programs. Studying the process of upward mobility, or the specific mechanisms of downward mobility, is beyond the scope of this study but deserves careful attention in future research.

APPENDIX

Table A1. Descriptive Statistics for Academic Achievement and Parenting, Using Alternative Definitions of Social Background

	Mean (standard deviation)			
	Stable middle	New middle	New working	Stable working
Grandmother's and mother's education 1 *SD* above the mean				
Academic achievement				
Reading	118.056 (17.123)	113.968 (16.436)	109.661 (18.4711)	104.653 (15.676)
Math	118.402 (17.941)	116.811 (17.743)	111.406 (18.211)	105.138 (16.111)
Parenting				
High-status cultural activities	0.946 (0.266)	0.912 (0.313)	0.809 (0.434)	0.750 (0.412)
Concerted cultivation	0.705 (0.638)	0.567 (0.770)	0.335 (0.941)	–0.094 (0.935)
Parents expect bachelor's degree	0.947 (0.263)	0.890 (0.346)	0.728 (0.491)	0.596 (0.470)
N	134	339	153	1,917
Highest of mother's or father's education				
Academic achievement				
Reading	115.556 (17.604)	110.486 (16.027)	106.834 (16.337)	102.129 (14.642)
Math	116.005 (17.682)	113. 554 (18.577)	106.926 (17.357)	103.069 (15.073)
Parenting				
High-status cultural activities	0.935 (0.284)	0.873 (0.345)	0.831 (0.384)	0.677 (0.431)
Concerted cultivation	0.650 (0.738)	0.331 (0.835)	0.159 (0.848)	–0.300 (0.917)
Parents expect bachelor's degree	0.907 (0.334)	0.840 (0.381)	0.636 (0.493)	0.513 (0.461)
N	513	300	379	1,351

Table A2. Regression Analyses Examining the Relationship between Social Background and Parenting

	Concerted cultivation		High-status cultural activities		Parents expect bachelor's degree	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
	Ordinary least squares regression		Logistic regression		Logistic regression	
Social background (reference: stable working)						
Stable middle	0.924**	0.530**	1.476**	0.838**	1.884**	1.406**
	(0.047)	(0.049)	(0.163)	(0.187)	(0.146)	(0.166)
New middle	0.706**	0.453**	1.000**	0.711**	1.330**	1.043**
	(0.047)	(0.047)	(0.150)	(0.171)	(0.126)	(0.147)
New working	0.506**	0.343**	0.897**	0.645**	0.291*	0.190
	(0.054)	(0.051)	(0.165)	(0.176)	(0.131)	(0.144)
Sociodemographic and family controls						
Female		0.055†		0.348**		0.153
		(0.032)		(0.109)		(0.096)
African American		−0.369**		−0.731**		−0.306*
		(0.050)		(0.146)		(0.136)
Other nonwhite racial/ethnic groups		−0.260**		−0.662**		−0.278
		(0.065)		(0.195)		(0.199)
Age		0.005		−0.034		0.021
		(0.009)		(0.028)		(0.025)
Mother's age		0.016**		0.019†		0.018†
		(0.003)		(0.011)		(0.009)
Immigrant		−0.480**		−0.254		1.368**
		(0.080)		(0.237)		(0.261)
Father higher educated		−0.012		0.359**		0.261*
		(0.039)		(0.136)		(0.116)
Number of siblings		−0.061**		−0.215**		−0.199**
		(0.015)		(0.045)		(0.045)
Two-parent household		0.105*		−0.061		−0.005
		(0.045)		(0.157)		(0.132)

continued

Table A2. (Continued)

	Concerted cultivation		High-status cultural activities		Parents expect bachelor's degree	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
	Ordinary least squares regression		Logistic regression		Logistic regression	
Income (ln)		0.094**		0.236*		0.506**
		(0.023)		(0.099)		(0.094)
Mother not working		0.088*		0.353*		0.219†
		(0.040)		(0.142)		(0.125)
Home ownership		0.136**		0.244†		0.146
		(0.043)		(0.146)		(0.129)
Constant	−0.314**	−0.738**	0.810**	0.704†	0.141*	−1.068**
	(0.026)	(0.118)	(0.067)	(0.382)	(0.060)	(0.338)
−2 log likelihood			2,444	2,258	2,910	2,678
R^2	0.167	0.299				

Note: Standard errors are in parentheses. N = 2,543.
†$p < .10$. *$p < .05$. **$p < .01$.

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NOTES

1. See Kingston (2001) for a critique of this broad definition of cultural capital.
2. Alternative age restrictions produce substantively similar results.
3. Another assessment of math ability—the calculations component—is not available for both survey years and thus could not be included in analysis.
4. The Child Development Supplement provides teachers' evaluations of students' competencies, but this information is available for only slightly over one-half of our analytic sample. Teachers' evaluations and test scores, however, are reasonably highly correlated: For students in our sample with available data, the correlation between teachers' evaluations of students' reading competencies and their reading test scores is .605 ($p < .01$).
5. The correlation between concerted cultivation and high-status cultural activities is only $r = .309$ ($p < .01$), and factor analysis fails to produce a one-factor solution including both of these dimensions of parenting.
6. The Panel Study of Income Dynamics reports employment status only for the head of the household, which is rarely the mother. Consequently, we derive this variable from occupations reported for the mother—when the occupation is coded as 0, referring to individuals who are "unemployed, retired, and out of the labor force," we use this as an indication that the mother is not employed.
7. Significance tests for mean differences in Tables 1 and 2 are based on two-tailed *t*-tests for differences between means, adjusted for multiple comparisons using the Bonferroni correction.
8. Previous research has suggested that grandparents' class is not consequential for children's outcomes net of parents' characteristics (e.g., Warren and Hauser 1997) and that grandparents' educational attainment has only a weak association with the values parents hold for their own children (e.g., Andres 2009). However, in this study, we are not asking how much parents or grandparents matter. Instead, we are interested in the extent to which parents can draw on their own resources or the resources of their families of origin to aid their children's educational success.
9. Educational expectations are related to the other measures of parenting ($r = .348$, $p < .01$, for concerted cultivation and $r = .218$, $p < .01$, for high-status cultural activities). Without educational expectations in the model, coefficients for high-status cultural activities and concerted cultivation are 25 percent to 40 percent larger.
10. Presented analyses assume that parenting practices influence academic achievement, but it is possible that academic achievement also influences parenting practices. To consider this possibility, we divided students into three categories—low, medium, and high—based on their test scores in 1997. Following, we examined change in parenting practices between 1997 and 2002 for each group. There was no statistically significant relationship between children's 1997 academic performance and change in parenting practices, although cell sizes were small since only a small proportion of children in the sample is present in both survey years.

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