CULTURAL CAPITAL INVESTMENTS: CONCERTED CULTIVATION AND THE ACADEMIC ACHIEVEMENT OF HISPANIC KINDERGARTEN STUDENTS

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ABSTRACT

This study extends analysis of the role of cultural capital investment in the form of concerted cultivation on measures of academic achievement in the Hispanic population. Previous studies have limited analyses to white and black students only. Using data from the Early Childhood Longitudinal Study—Kindergarten Class of 1998-99 (ECLS-K), this study quantitatively tests Lareau's (2003) theory of concerted cultivation and its impact on measures of academic achievement for Hispanic students. Consistent with Bodovski and Farkas (2008), concerted cultivation is measured using 29 items concerning perceptions of parental responsibility, leisure time, parental relationships with school, and the number of children's books at home. This study uses three distinct outcome measures of academic achievement—general knowledge, mathematics, and literacy. Results of ordinary least squares regression analyses indicate that, for Hispanic students, concerted cultivation is positively and strongly associated with parental socioeconomic status but only modestly associated with measures of academic achievement.

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INTRODUCTION

The 2000 U.S. Census identified the Hispanic population as the largest minority group (U.S. Census Bureau 2010). A decade later, 2010 U.S. Census population reports show the Hispanic population increased from 13 to 16 percent of the total United States population (U.S. Census Bureau 2011). The population increase is nearly four times the growth of the total population (U.S. Census Bureau 2011). At the same time Hispanic student academic achievement has continued to trail behind white and black student achievement with disproportionately low levels of educational attainment (Schneider, Martinez, and Owens 2006).

Research findings suggest that schools are not the primary source of academic achievement gaps between racial and ethnic groups (Lee and Burkam 2002; Lareau 2003; Bodovski and Farkas 2008; Bodovski 2010). There are significant gaps in school readiness and academic performance between racial and ethnic groups as early as kindergarten, which raises questions concerning the role and influence of family environment and parenting behaviors on gaps in early childhood school readiness and achievement (Coley 2002; Denton-Flanagan and Reaney 2004; Lee and Burkam 2002; Raver 2007).

This paper extends previous work by Katerina Bodovski and George Farkas (2008) and Bodovski (2010) who examined the role of concerted cultivation in the academic achievement of white and black students. No previous study has examined whether the influence of cultural capital investment, in the form of concerted cultivation, holds in the case of Hispanic students.

LITERATURE REVIEW

Cultural Reproduction of Inequality

Using a cultural reproduction of inequality perspective to analyze cultural capital investments of family resources in children by race and ethnic group provides a unique context for studying how income and socioeconomic inequalities differentially influence the skill acquisition and educational attainment of different groups. The differential returns of cultural capital investments on early childhood achievement suggest investments may be more beneficial for particular race and ethnic groups. A cultural reproduction of inequality perspective emphasizes the ways in which the kind and distribution of knowledge within society is distributed in class based ways. The notion of cultural capital was first developed by Pierre Bourdieu as a theoretical hypothesis and explanation for the observed disparities between children of varying social classes in educational attainment (Weininger and Lareau 2003).

Bourdieu (1986) argued that cultural habits and dispositions, beyond economic factors, generate a type of cultural resource that he called cultural capital. Bourdieu argues that: "[Because] the social conditions of [cultural capital's] transmission and acquisition are more disguised than those of economic capital, it is predisposed to function as symbolic capital" (Bourdieu 1986: 49). He further asserts that the transmission of cultural capital is the "best hidden and socially most determinant educational investment" (Bourdieu 1986: 48). Schools value symbolic kinds of knowledge directly and indirectly associated with the cultural capital of dominant groups in society (Bourdieu and Passeron 1977). Thus, the investment in cultural capital prior to schooling within family and childrearing practices is critical to understanding the cultural reproduction of inequality and the intergenerational transmission of class advantage.

Theory of Concerted Cultivation

Intergenerational transmission of class advantage within families is one form of the cultural reproduction of inequality. In an ethnographic study of 12 families, Annette Lareau (2003) examines the role of cultural logic in childrearing. Lareau (2003) argues that the mechanism by which class advantage is produced and reproduced is through distinct class based approaches to childrearing (Lareau 2002, 2003). Middle-class parents engage in a parenting style Lareau (2003) calls "concerted cultivation" and working-class parents engage in "the accomplishment of natural growth." The class based approaches to parenting each have distinct cultural logics (Lareau 2003). Cultural logic encompasses beliefs and actions. While middle and working-class mothers may express similar beliefs, behaviors still differ and thus, cultural logics also differ.

The theory of concerted cultivation as an approach to childrearing asserts that middle-class parents actively foster a child's talents, opinions, and skills. In contrast, the theory of the accomplishment of natural growth asserts that working-class parents actively attempt to provide the necessities for children to grow. Lareau (2003) suggests that such class based approaches to childrearing vary along three key dimensions: the organization of daily life, the use of language, and social connections.

The organization of daily life for children in middle-class families is very different from their working-class counterparts. Middle-class children's days are filled with scheduled adult supervised activities. The children's activities often determine the schedule for the entire family (Lareau 2003). In contrast, working-class children have open-ended agendas. Play is generally informal and impromptu with kin or neighboring children. Working-class parents place a much higher premium on respect for adults, related or not related, thereby creating clear boundaries between adults and children in working-class families (Lareau 2003).

Language use between middle-class parents and children varies in distinct ways from the language use between working-class parents and children. Lareau (2003) reports that, in middle-class families, steady flow of conversation are interrupted by silence compared to the homes of their working-class counterparts whose steady silence is interrupted by speech. Not only does language use create very different home environments in which children grow, children of different classes are taught to use language differently (Lareau 2003). Children in working-class families obey directives and appear to be subdued and silent in the presence of adults. Children in middle-class families, in contrast, experience a home environment in which steady patterns of conversation with parents is the norm. Middle-class parents engage in conversation, reasoning, and negotiation with children. This approach fosters a strong vocabulary in middle-class children so that children were often observed using their learned vocabulary skills to argue or disagree with parents (Lareau 2003). Although Lareau (2003) does not argue that one approach to childrearing is intrinsically better than the other, she does maintain that the concerted cultivation approach to childrearing, in terms of language use, may prove to be beneficial for middle-class children because society is increasingly placing a premium on "assertive, individualized actions executed by persons who command skills in reasoning and negotiation" (Lareau 2003: 133).

Social connections also vary by class. Middle-class children observe parents' assertive interventions in school. Lareau reports that the middle-class parents demonstrate to children that they have a right to approach teachers and administrators with classroom concerns (Lareau 2003; 177). Middle-class parents also often "scanned the horizon for opportunities to activate their cultural capital and social capital on behalf of their children" (Lareau 2003; 180). Working-class parents do not have the same attitudes toward social institutions, like schools. Children of

working-class parents observe parents' obedience to and dependence on people in positions of authority and learn to be weary in their interactions with authority.

Based on the three key dimensions, Lareau (2003) finds that middle-class children demonstrate emerging signs of a "sense of entitlement" and working-class children, "a sense of constraint" (Lareau 2003; 163).

FIGURE 1: Typology of Differences in Childrearing

	Child-Rearing Approach	
	Concerted Cultivation	Accomplishment of Natural Growth
Key Elements	Parent actively foster and assess child's talents, opinions, and skills	Parent cares for child and allows child to grow
Organization of Daily Life	Multiple child leisure activities orchestrated by adults	"Hanging out," particularly with kin, by child
Language Use	Reasoning/directives Child contestation of adult statements Extended negotiations Between parents and child	Directives Rare questioning or challenging of adults by child General acceptance by child of directives
Interventions at Institutions	Criticism and inter-vention on behalf of child Training of child to take on this role	Dependence on institutions Sense of powerlessness and frustration Conflict between child -rearing practices at home and at school
Consequences	Emerging sense of entitlement on the part of the child	Emerging sense of constraint on the part of the child

Source: Lareau (2003: 31)

Middle-class children observe their parents' interactions with institutions in a distinct way and imitate the assertive demeanor. The skills middle-class children instinctively learn from their parents are skills rewarded in social institutions like schools. Although Lareau (2003) does not suggest either approach to childrearing is inherently "good" or the "right way," it is clear that the "sense of entitlement" middle-class children develop has its benefits for future interactions with various social institutions.

Lareau (2003) also suggests that the distinct cultural logics interwoven in concerted cultivation and the accomplishment of natural growth are not simply the result of varying economic and social resources. Parents transmit advantage to children "in patterns that are sufficiently consistent and identifiable to be described as 'cultural logic' of childrearing" (Lareau 2000; 772). Cultural logic in childrearing approaches, in conjunction with economic and social resources, produces emerging senses of entitlement in middle-class children and senses of constraint in working-class children, having crucial influences on the ways in which children interact with social institutions such as schools.

Previous literature on the unique social and cultural characteristics of the Hispanic population suggests there is reason to be attuned to the independent role of racial and ethnic background in shaping the lives of children. Therefore, Lareau's (2003) concentration on the power of social class may be problematic, because prior literature suggests that racial and ethnic background plays an important independent role in shaping the cultural capital investments and returns of family resources in children.

CONCEPTUAL FRAMEWORK

Research Questions

The research questions in this paper examine differences in parental cultural capital investment in children's development independently by socioeconomic status and race and ethnic background. Rising inequality affects the economic, social, and cultural capital resources rich and poor families can invest in children. Disparities in such investments, though, differentially affect the skill acquisition, educational attainment, and intergenerational mobility of children by race and ethnic background.

This paper addresses the following research questions for white, black, and Hispanic kindergarten students: To what extent is concerted cultivation driven by socioeconomic status?

And to what extent does concerted cultivation have an effect on the (i) general knowledge, (ii) mathematics, and (iii) literacy achievement of kindergarten students?

Hypotheses

(H1) Concerted cultivation is distinct from SES for Hispanic students.

(H2) SES is positively and significantly associated with concerted cultivation for Hispanic students.

(H3) Concerted cultivation is positively but not significantly associated with kindergarten general knowledge achievement of Hispanic students.

(H4) Concerted cultivation is positively but not significantly associated with kindergarten mathematics achievement of Hispanic students.

(H5) Concerted cultivation is positively but not significantly associated with kindergarten literacy achievement of Hispanic students.

DATA

Early Childhood Longitudinal Study, Kindergarten Class of 1998-1999

The data used in this study are from the Early Childhood Longitudinal Study, Kindergarten Class of 1998-1999 (ECLS-K). The ECLS-K data (N= 21,260)[1] are a nationally representative longitudinal survey funded by the U.S. Department of Education, National Center for Education Statistics (NCES). The ECLS-K are the first multifaceted data designed to provide a comprehensive description of children's development and early school experiences. This approach makes ECLS-K the most appropriate data set to study approaches to parenting as it relates to children's subsequent academic performance.

In general, ECLS-K data focuses on three general themes: (i) schooling and performance, (ii) status and transitions, and (iii) the interaction of school, family, and community. The ECLS-K data specifically offer descriptive information concerning children's cognitive, emotional,

[1] Consistent with Bodovski and Farkas (2008), the subsample used in this study is approximately 15,000.

social, and academic development as it relates to these three broad themes. Information from children, their families, teachers, and schools was collected from kindergarten through 8th grade in the fall and spring of kindergarten (1998-1999), the fall and spring of 1st grade (1999-2000), the spring of 3rd grade (2002), and the spring of 5th grade (2004), and the spring of 8th grade (2007).

Sample Design and Performance Test Measures

The ECLS-K sampling frame is a multistage cluster design. First, primary sampling units were drawn from county-level population data. Second, 100 primary sampling units were drawn and stratified based on size, race, and per capita income, then public and private schools with kindergarten grades were drawn from the remaining sample of primary sampling units, and the final stage included sampling kindergarten children from within schools (U.S. Department of Education, NCES).

Dependent Variables

General Knowledge Assessment. The general knowledge assessment tested students' science and social studies knowledge. This assessment consisted of questions concerning a child's conception, understanding, and ability to draw inferences of the social, physical, and natural world. The measure of general knowledge used in this study is an Indirect Cognitive Assessment (ARS) developed by ECLS-K to holistically measure teachers' evaluations of students' general knowledge achievement along with students' direct cognitive general knowledge assessment scores. This measure of general knowledge overlaps and augments the information gathered from students' individually administered and standardized (IRT-scaling) direct cognitive assessment. The process by which indirect cognitive assessment is measured captures both the process and product of children's learning. These scores, as a result, reflect a

broader sample of national curriculum standards and guidelines. General knowledge scores were rescaled to range from one to five and standardized in this study to have a mean of 0 and standard deviation of 1.

Mathematics Assessment. Mathematics assessment tested skills, instead of specific knowledge and was designed to measure processes and products of students' conceptual, procedural, and problem solving knowledge. All mathematics assessment scores were rescaled to range from one to five and standardized in this study to have a mean of 0 and standard deviation of 1.

Literacy Assessment. Literacy assessment tested skills such as recognition and comprehension, instead of specific knowledge to augment the information gathered from students' individually administered and standardized (IRT-scaling) direct cognitive assessment. The indirect cognitive assessment scores were rescaled to range from one to five and then standardized in this study to have a mean of 0 and standard deviation of 1.

Explanatory Variables

Concerted Cultivation. This study uses a scale of concerted cultivation created by Bodovski and Farkas (2008) to measure a concerted set of parenting strategies defined by Lareau (2003). Consistent with Lareau's (2003) definition, Bodovski and Farkas (2008: 909) assert that: "rather than any particular activity by itself, it is a concerted set of these activities that create positive outcomes for children." The quantitative measure of concerted cultivation is the sum of three dimensions of childrearing.

The first quantitative dimension measures "parental perceptions of their responsibilities towards their child" (Bodovski and Farkas 2008: 909). Parental survey questions asked how

often parents participated in the activities presented in Figure 2 (Bodovski and Farkas 2008). All items were summed and then z-scored.

FIGURE 2: First Quantitative Dimension of Concerted Cultivation

Variable	Description
Parental Perceptions of Responsibilities:	
P4HMWORK	How often Help Homework
P4TELLST	How often You Tell Child Stories
P4SINGSO	How often You All Sing Songs
P4HELPAR	How often You Help Child Do Art
P4GAMES	How often You All Play Games
P4NATURE	How often You Teach Child Nature
P4BUILD	How often You All Build Things
P4SPORT	How often You All Do Sports
P4DWRNM	How often Practice Numbers
P4READBO	How often You Read to Child
P4LISTEN	Listen to Child When Busy
P4OPINIO	Encourage Child to Express Opinion

The second quantitative dimension "concerns the ways children spend their leisure time, in particular their participation in organized activities" (Bodovski and Farkas 2008: 910). Parental survey questions asked whether the child participated in the activities or educational trips presented in Figure 3 (Bodovski and Farkas 2008). Participation in any single activity was coded 1 and 0 otherwise. All organized activities and educational trips were summed and then z-scored.

FIGURE 3: Second Quantitative Dimension of Concerted Cultivation

Variable	Description
Leisure Time:	
P4DANCE	Takes Dance Lessons
P4ATHLET	Participation In Athletic Events
P4MUSIC	Take Music Lessons
P4ARTCRF	Takes Art Lessons
P4ORGANZ	Participate in Organized Performing
P2CRAFTS	Takes Craft Lessons
P4LIBRAR	Visited the Library
P2CONCRT	Gone to a Play, Concert, Shows
P2MUSEUM	Visited a Museum
P2ZOO	Visited a Zoo, Aquarium

The third quantitative dimension measures "parents' relationships with social institutions, particularly schools" (Bodovski and Farkas 2008: 910). Parental survey questions measured

parental participation in the activities and events presented in Figure 4 (Bodovski and Farkas 2008). All parental questions included were dichotomous. All dichotomous variables were summed. The sum was then z-scored.

FIGURE 4: Third Quantitative Dimension of Concerted Cultivation

Variable	Description
Parents' Relationship with Social Institutions	
ATTENB	Attended an Open House or Back-to-School Night
ATTENP	Attended a Meeting of PTA or PTO or Parent Teacher Student Organization
PARGRP	Gone to a Regularly-Scheduled Parent-Teacher Conference with Child's Teacher or Meeting with Child's Teacher
ATTENS	Attended a School or Class Event, Such as a Play, Sports Event, or Science Fair
VOLUNT	Acted as a Volunteer at the School or Served on a Committee
FUNDRS	Participated in Fundraising for Child's School

In addition to these dimensions, the number of children's books at home was z-scored to have a mean of 0 and standard deviation of 1. The concerted cultivation scale created and used by Bodovski and Farkas (2008) is the standardized sum of each standardized dimension and standardized measure of children's books at home.

FIGURE 5: Number of Children's Books at Home, Additional Component of Concerted Cultivation

Variable	Description
Children's Books at Home	
P4CHILBOO	Number of Children's Books Have/Are in Your Home Now

Race/Ethnic Background. In this study, a race variable was created and coded into four race and ethnic groups: white, black, Hispanic, and other[2]. A dummy variable was then created for each race and ethnic group. Race and ethnicity dummy variables are used to estimate separate models for each race and ethnic group: white, black, and Hispanic students. For example, for

[2] Although Asian and Pacific Islanders and Native Americans are distinct racial and ethnic groups, in this study these groups were joined to form others because it is beyond the scope of this study to examine the impact of these mechanisms for Asian and Pacific Islander and Native Americans.

each analysis of an outcome variable (i.e. general knowledge, mathematics, and literacy) a model is first estimated for all students. This model is then independently estimated using respective dummy variables for only white students, only black students, and then only Hispanic students.

The analysis for each outcome measure is estimated in separate models in this way (i.e. all students, white students, black students, and Hispanic students) to approximate the effect of *each* explanatory variable as it interacts with the racial and ethnic group designated for that specific model. This design does not presuppose that the effect of *any* single explanatory variable is equal for all racial and ethnic groups. Instead, separate analyses by race and ethnic group for each outcome measure takes into account the complexity of the ways in which race interacts with a variety of explanatory variables (i.e. child and family social background characteristics).

Socioeconomic Status. This variable is created from parent interviews in the fall and spring of kindergarten. Questions include information on: father/male guardian's education, mother/female guardian's education, father/male guardian's occupation, mother/female guardian's occupation, and household income. Parent's occupation reflects the average of the General Social Survey (GSS) prestige score of the occupation. All components of the SES variable were imputed, summed, and then z-scored. The composite SES variable is a continuous variable that ranges from -4.75 to 2.75. In all regression analyses, socioeconomic status functions as a continuous variable.

Poverty. This variable is created from composite variables measuring income, household person totals, and Census-defined thresholds. This variable is dichotomous (i.e. below poverty threshold and at or above poverty threshold). The poverty dummy variable was created and coded 1 for below the Census-defined poverty threshold and 0 at or above the poverty threshold.

Female. This composite gender variable is dichotomous (i.e. male or female) and a female dummy variable is created. In all analyses, male is the reference group.

Kindergarten Repeater. A kindergartener repeater dummy variable was created and coded as 1 and students whose records did not were coded as 0.

Age. This variable is calculated by determining the number of days between the child assessment date and the child's date of birth divided by 30 to calculate the child's age in months. This age variable functions as a continuous control variable.

Non-English Household. A non-English household dummy variable was created. Children's households who reported primarily speaking a non-English language were coded as 1 and children's households who reported primarily speaking English were coded as 0. In all analyses, English household is the reference group.

Child Citizenship. A child citizen dummy variable was created. Children whose parents indicated the child was a citizen were coded as 1 and children who were not were coded as 0.

Single Parent Household. A single parent household dummy variable was created based on ECLS-K family classifications.

Parents' Educational Expectations for Child. This is a continuous variable ranging from 1 to 6 (i.e. less than high school to Ph.D., MD or other higher degree). The z-score of this range was computed to have a mean of 0 and standard deviation of 1.

Child Care. This variable is classified into nine categories: no non-parental care, relative care in child's home, relative care in another home, non-relative care in child's home, non-relative care in another home, Head Start, center-based program, 2 or more program, and location of care varies. For this study, relative, non-relative, Head Start, center based, and multiple care dummy variables were created.

FINDINGS

TABLE 1: Descriptive Statistics for Base Year, Early Childhood Longitudinal Study Kindergarten Class of 1998, Percents Presented.

Characteristic	*Concerted Cultivation*	*General Knowledge*	*Math*	*Literacy*
Race				
White	60.6	60.5	60.9	60.6
Black	12.9	12.8	12.5	12.9
Hispanic	16.3	16.4	16.9	16.4
Other	10.1	10.3	9.6	10.0
Socioeconomic Status				
Quintile 5 (High)	21.6	22.6	22.0	21.1
Quintile 4	21.8	21.8	21.6	21.8
Quintile 3	19.9	19.9	20.2	20.2
Quintile 2	18.6	18.3	18.6	18.4
Quintile 1 (Low)	18.1	17.5	17.5	18.5
Poverty Status				
At or Above Poverty Threshold	81.7	82.1	82.0	82.2
Below Poverty Threshold	18.3	17.9	17.9	17.8
Gender				
Male	50.9	50.7	50.8	50.9
Female	49.1	49.3	49.2	49.1
Kindergarten Status				
Kindergarten First Time	96.2	95.7	95.6	95.8
Kindergarten Repeater	3.8	4.3	4.4	4.2
Household Language				
English Household	87.7	88.6	88.4	88.5
Non-English Household	12.2	11.4	11.6	11.5
Child Citizen				
Child U.S. Citizen	98.3	98.3	98.4	98.3
Childe Not U.S. Citizen	1.7	1.7	1.6	1.7
Family Structure				
Two Parent Household	82.1	80.2	80.4	80.1
Single Parent Household	17.9	19.8	19.6	19.9
Parental Expectations				
High School or Less	8.9	8.8	9.0	8.9
Two or More Years of College	14.0	13.6	13.5	13.8
Finish 4 Year College Degree	76.9	77.6	77.5	77.2
Child Care				
No Non-Parental Care	18.4	18.5	18.8	18.6
Relative Care	13.3	13.2	13.3	13.3
Non-Relative Care	10.7	10.6	10.8	10.6
Head Start	8.4	8.6	8.2	8.3
Center Based	44.2	44.3	44.1	44.3
Multiple Care	4.7	4.6	4.7	4.8
Total Observations	14,737	10,483	9,882	12,076

TABLE 2: OLS Regression Coefficients of Concerted on Socioeconomic Status (ECLS-K data).

	All Students	White Students	Black Students	Hispanic Students
	Concerted Cultivation	Concerted Cultivation	Concerted Cultivation	Concerted Cultivation
SES (Continuous)	1.450***	1.314***	0.945***	1.632***
	(0.0225)	(0.0313)	(0.0615)	(0.0574)
Constant	-0.0404**	0.320***	-0.643***	-0.440***
	(0.0180)	(0.0244)	(0.0513)	(0.0465)
Observations	14,737	8,931	1,894	2,403
R-squared	0.220	0.165	0.111	0.252

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Hypothesis 1

Findings suggest concerted cultivation is distinct from socioeconomic status. All Pearson's correlation coefficients are statistically significant at $p<0.05$. However, the coefficients vary across race and ethnic groups. For example, the correlation between concerted cultivation and socioeconomic status is smallest for black students (0.3331) and largest for Hispanic students (0.5018) relative to white students (0.4058). This suggests that, relative to white families, concerted cultivation is the most different (i.e. least correlated with socioeconomic status) for black families and least different (i.e. most correlated with socioeconomic status) for Hispanic families.

For all groups, despite differences, the relatively low Pearson's correlation coefficients support Lareau's (2003) argument that concerted cultivation is conceptually and practically distinct from socioeconomic status. The present study extends analysis to the Hispanic population and results strongly support Hypothesis 1 that concerted cultivation is conceptually and practically distinct from SES for Hispanic student. Further, concerted cultivation is best

captured by socioeconomic status for Hispanic families than for any other single race or ethnic group.

Hypothesis 2

Findings also suggest SES is positively and significantly associated with concerted cultivation for all racial and ethnic group, though the coefficients vary between groups. This suggests that, relative to white families, an increase in SES result a smaller increase in concerted cultivation among black families and larger increase among Hispanic families.

TABLE 3: Impact of Concerted Cultivation on Academic Achievement Measures (ECLS-K data).

	OLS Regression Coefficients in Models for:			
Outcome Measures	All Students	White Students	Black Students	Hispanic Students
General Knowledge	0.042***	0.036***	0.041***	0.025**
Mathematics	0.040***	0.041***	0.042***	0.025**
Literacy	0.046***	0.039***	0.062***	0.035***

*** p<0.01, ** p<0.05, * p<0.1

Note: All models control for socioeconomic status, poverty, gender, kindergarten status, child age, household language, child citizenship, family structure, parental expectations, and child care.

Hypothesis 3

Concerted cultivation is positively but not significantly associated with early general knowledge achievement for Hispanic students. All things equal, the impact of concerted cultivation on general knowledge is largest for black students (0.041) and smallest for Hispanic students (0.025). This suggests that, relative to white students, an increase in concerted cultivation results in a larger increase in general knowledge achievement for black students and a smaller increase for Hispanic students.

Hypothesis 4

Concerted cultivation is positively but not significantly associated with early mathematics achievement for Hispanic students. The impact of concerted cultivation on mathematics is

positive and significant for all racial and ethnic groups, though the impact of concerted cultivation on mathematics is largest for black students (0.042) and smallest for Hispanic students (0.025). This suggests that, relative to white families, an increase in concerted cultivation results in a larger increase in mathematics achievement for black students and a smaller increase for Hispanic students.

Hypothesis 5

Concerted cultivation is positively but not significantly associated with early literacy achievement for Hispanic students. Similar to general knowledge and mathematics, the magnitude of the impact of concerted cultivation on literacy assessments varies by racial and ethnic group. The impact of concerted cultivation on literacy is largest for black students (0.062) and smallest for Hispanic students (0.035). This suggests that, relative to white families, an increase in concerted cultivation results in a larger increase in literacy achievement for black students and a smaller increase for Hispanic students.

CONCLUSION

Although the majority of research on the intergenerational transmission of advantage in childrearing has focused either on white students or on black students, the demographic influx among Hispanics makes it increasingly important to consider the early role of cultural capital investments through class-based approaches to childrearing in shaping children's life chances.

The findings of this study suggest that concerted cultivation is most strongly associated with social class for Hispanic families and least for black families. The positive influences of concerted cultivation on all three measures of academic achievement for Hispanic students are weaker than they are for white and black students.

Identifying the effects of differential investments and returns of cultural capital through concerted cultivation by race and ethnic group highlights the importance of studying how income

and socioeconomic inequality differentially influence children's early skill acquisition and educational attainment for different groups as an area of future research inquiry.

By and large, the extent to which advantage—or disadvantage—is reproduced varies by race. The returns of parental cultural capital investment, in the form of concerted cultivation, are not equal across race and ethnic groups. The disadvantages with which children enter schools are visible, yet the processes of cultural reproduction which develop such disadvantages often remain invisible. Thus, contrary to previous literature, the current study demonstrates the importance of analyzing the independent role of racial and ethnic background as a factor to help explain growing socioeconomic achievement gaps from a cultural capital investment perspective.

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