



Race, Class, and Theories of Inequality in the Sociology of Education

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Abstract

After explaining a focus on race and class inequality, we briefly sketch contemporary racial and socioeconomic inequality in education. Then, we convey key criteria used to select which of the many theories to consider. We then describe ten theories of racial/ethnic- and class-linked inequality in education. After the last theory has been described, we identify selected points of contact across the theories. We then discuss three examples of existing research to demonstrate how research may be used to assess the theories. We conclude by offering suggestions for next steps.

4.1 Introduction

Multiple analysts have documented a relation between educational outcomes and students' socioeconomic (e.g., Blau and Duncan 1967; Featherman and Hauser 1978; Sewell and Hauser 1980) and racial/ethnic (e.g., Featherman and Hauser 1978; Jaynes and Williams 1989; Jencks and Phillips 1998) origins. Such works have documented the changing power of class and race/ethnicity, but none have documented the eradication of either effect. Additional research indicates powerful education associations with and effects on multiple individually and societally consequential outcomes, from matters as material as health (e.g., Kimbro et al. 2008) and mortality (e.g., Kitagawa and Hauser 1968) to matters as ideological as political efficacy (e.g., Paulsen 1991) and prejudice attitudes on grounds of sex (e.g., Cherlin and Walters 1981), race (e.g., Bobo and Licari 1989), and anti-semitism (in liberal democracies) (Weil 1985). Because effects of education are wide-ranging, class and racial/ethnic inequalities in education ramify far beyond the realm of schooling. Perhaps owing to the importance of education in individuals' well-being and thus society's capacities, the intransigence of class and race effects on educational outcomes has motivated many analysts to attempt explanations. In the pages below we attend to some of the most widely-researched and/or promising explanations at present.

We thank Jan Jacobs, Susan Schacht (posthumously), H. Sorayya Carr, Aimée Dechter, and Olivia Garcia for many helpful conversations. This research has been supported by funding from the NSF-GRFP (Grant No. DGE 1106400). All errors and omissions are the fault of the authors. Please direct correspondence to Samuel R. Lucas / Sociology Department / University of California-Berkeley / 410 Barrows Hall #1980 / Berkeley, CA 94720-1980 or by e-mail to lucas@berkeley.edu

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One could take one of two vantage points for considering the relation between class and education. One approach considers how the socioeconomic position of children's, adolescents', and young adults' families of origin affect children's, adolescents' or young adults' educational trajectories and outcomes. A second approach studies how young adults' education matters for their own placement in the labor force, occupational distribution, and earnings distribution. Both approaches are important, but we will focus on the former because the research claiming racial fluidity (e.g., Saperstein and Penner 2010, 2012) is seriously flawed in the U.S. context (Lucas and Beresford 2010, pp. 32–37; Defina and Hannon 2016; Kramer et al. 2016), making it more correct to consider a persons' race as a factor in their educational trajectories, not as a result thereof. To make our focus consistent, we will address race and class effects on education, not education effects on class or race.

Even so, some theories explain race and/or class effects on education by considering how education affects later class position. Thus, our stark division, while empirically possible, is not necessarily always recognized in the literature. Where necessary, we will follow the theoretical claims, and not enforce an arbitrary narrowing of focus.

We begin by justifying our joint focus on race and class inequality and by providing a brief sketch of contemporary racial and socioeconomic inequality in education. Afterwards, we introduce key criteria used in selecting which of the many theories to consider. Then, ten theories are conveyed. After the last theory has been described, we identify selected points of contact across the theories. In our next-to-final section, we draw on empirical research to show how the theories might be assessed in an effort to trim the list of viable theories. We conclude by offering suggestions for next steps.

4.2 Race and Socioeconomic Status: Processes and Inequalities

Across developed nations, inequalities exist between more and less advantaged students in opportunities (e.g., gifted and talented education

(GATE), special education assignments), treatment (e.g., suspensions, expulsions), academic performance (e.g., grades, test scores) and attainments (e.g., years of school completed, college degree attainment, advanced degree attainment). Inequalities can exist along lines of class, race, gender, sexual orientation, disability status, and more. This chapter focuses specifically on the inequalities between students from different socioeconomic and racial/ethnic backgrounds. In this section, we first explain our focus on race/ethnicity and class; afterwards, we convey a snapshot of class and racial/ethnic inequality in education.

4.2.1 Why Race and Class?

The decision to focus on race and class necessarily omits many other factors of great importance. One could justify the decision by noting that it reflects a widespread emphasis on these ascribed characteristics as bases of stratification beyond the school. For social reproduction in education, however, the interest in race and class is more than a historical artifact of the discipline. Particularly in the United States, where public schools are funded through property taxes and students are generally allocated to schools based on the neighborhood in which they live, generations-long patterns of the geographic concentration of disadvantage are amplified in education. Because neighborhoods are segregated along race and class lines rather than along other very important axes of stratification, such as gender, and because construction of school catchment areas can result and has resulted in even more racial/ethnic and class segregation than neighborhoods would actually have (Saporito and Sohoni 2006, 2007), it is especially important to understand how education is implicated in these inequalities.

Race and class, for better or worse, are also key sites of struggle in educational policy reform in the United States. This is especially apparent in postsecondary education, likely because bachelor's degrees long ago replaced high school diplomas as the prerequisite for good jobs (Jencks et al. 1988) while access to the institutions that award

those degrees remains more a privilege than a right. Most visibly, race-based affirmative action remains a hotly contested issue. At the same time, reproduction of stratification at these institutions through legacy admissions policies (Howell and Turner 2004), which function as affirmative action for wealthy Whites, occurs almost completely without protest. Therefore, among other reasons, understanding how inequalities along race and class lines play out in education, both before and after matriculation to college, is essential to better inform policy decisions.

4.2.2 Inequalities in Education by Race and Socioeconomic Class: A Snapshot

Every 3 years, the Program for International Student Assessment (PISA) tests the reading, math, and science literacy of 15-year-old students in the 34 nations from the Organization for Economic Cooperation and Development (OECD), along with 31 partner nations/economies. Students’ report of their parents’ education, occupation, and “classical” cultural material in the home are used to construct an index of economic, social, and cultural status (ESCS). National Center for Education Statistics (NCES) data allow comparison of PISA scores by students’ national quartile rank on the ESCS index. With only one exception (students in the second ESCS quartile in Liechtenstein outperform their third quartile peers by a statistically non-significant margin), students from higher-ESCS quartiles perform better in math and reading than their (adjacent quartile) lower-ESCS compatriots in every participating country. Over 90% of country-quartile differences were statistically significant.¹ Carnoy and Rothstein (2013) simi-

¹Three comparisons were made in each of 65 countries (2nd-1st quartile, 3rd-2nd, and 4th-3rd), for a possible 195 significant within-country quartile gaps in each subject. Non-significant differences were found in only 17 countries for math and 21 countries for reading and generally only in 1 of the 3 comparisons. In all other instances, students in higher quartiles performed statistically significantly better than their adjacent lower-quartile peers on

Table 4.1 Average scores of U.S. 15-year-old students on 2012 PISA assessments^a

	Reading		Math		Science	
	Avg.	s.e.	Avg.	s.e.	Avg.	s.e.
OECD Average	496 [†]	0.5	494 [†]	0.5	501 [†]	0.5
U.S. Average ^b	498	3.7	481*	3.6	497	3.8
<i>Percent of students in school receiving free or reduced price lunch^c</i>						
Less than 10%	559 [†]	8.6	540 [†]	7.8	556 [†]	7
10–24%	524*	5.3	513*	5.7	528*	6.5
25–49.9%	519	6.7	506	6.4	523	5.6
50–74.9%	479*	4.7	464*	4.6	483*	5.0
75% or more	452*	8.5	432*	7.2	442*	8.1
<i>Student race/ethnicity^d</i>						
White	519 [†]	4.1	506 [†]	3.7	528 [†]	3.7
Black	443*	8.3	421*	6.2	439*	6.8
Hispanic	478*	4.5	455*	4.8	462*	4.7
Asian	550*	8.1	549*	9.0	546*	8.6
Multiracial	517	7.6	492*	7.4	511	7.8

[†] reference group, * $p < 0.05$

^aSource: National Center for Education Statistics, Archived International Data Table Library

^bSignificance stars are relative to OECD average

^cIncludes only students in public schools. Significance stars in this portion of the table refer to the difference relative to the FRL group in the immediately preceding row

^dSignificance stars in this portion of the table are relative to White students

larly find that students from higher socioeconomic backgrounds perform better on international assessments in all OECD countries. Thus, while the remainder of the chapter focuses heavily on evidence from the United States, we treat socioeconomic inequalities in education as a universal dilemma.

Table 4.1 demonstrates strong socioeconomic and racial patterns in test performance in the United States. Across all subjects, scores decline steadily as one moves from students who attend schools with the fewest socioeconomically disadvantaged peers to those who attend schools with the most socioeconomically disadvantaged peers. Moreover, because socioeconomic disadvantage

average. Data from the National Center for Education Statistics International Data Table Library: Table B.1.119 (PISA 2012 Results Table M8) and Table B.1.95 (PISA 2012 Results Table R8).

is measured at the school level, rather than the student level, these figures may underestimate the achievement gap between the most advantaged (wealthy students attending wealthy schools) and most disadvantaged (poor students attending poor schools) students. Black and Hispanic students also underperform relative to their White and Asian peers. Given the relative concentration of Black and Hispanic students in the most socioeconomically disadvantaged schools, these achievement gaps reflect compound disadvantages.

The test scores summarize socioeconomic and racial/ethnic differences in performance, but may not make it clear what differences in test scores mean for differences in students' capabilities. PISA reports also indicate students of different socioeconomic contexts and racial/ethnic backgrounds' distribution along benchmarks of mathematics literacy. Abstracting from the NCES report on PISA (NCES 2013, p. 3), one can summarize the levels as in Table 4.2.

Considering these capability thresholds, Fig. 4.1 sketches the distribution of U.S. 15-year-old students by the proportion of schoolmates eligible for free or reduced price lunch. In Fig. 4.1 (and Fig. 4.2, below), the marks are connected with lines to facilitate recognition of the patterns. Considering the patterns, slightly less than 59% of the students attending schools with one-quarter

In comparison, nearly 75% of students attending schools with no more than 1 in 10 students in poverty exceed performance level 2. In contrast in hyperpoverty schools, schools with three-quarters or more students in poverty, barely 25% of students exceed level 2. For race/ethnicity, shown in Fig. 4.2, similar disparities are evident.

It is difficult to see how a nation can maintain a productive economy if large numbers of its adolescents do not have the mathematics literacy to execute sequential procedures with basic reasoning. It is difficult to see how future citizens will make well-informed decisions in a democracy if substantial proportions of its adolescents cannot integrate assumptions and connect them to real-world arguments. Thus, failure to reach noted benchmarks, and the race- and class-linked nature of the shortfall, is consequential not only for individuals, but also (perhaps) for society.

Educational stratification occurs not only in performance at a given grade or level of schooling, but in the highest level of education that individuals pursue and complete. While the expansion of the community college in the United States has opened the door to postsecondary education for many low-SES and underrepresented minority students, both enrollment and persistence in college continue to lag for these groups. The first panel of Table 4.3 presents the college enrollment rates of recent high school completers over three decades, with the most recent year chosen to align with the PISA assessments from Table 4.1.² The second panel presents degree attainment after 6 years for students who enrolled full-time for the first time in a bachelor's degree program in the 2003–2004 school year. These data, taken from the Current Population Survey (CPS) and Beginning Postsecondary Study (BPS), respectively, show that Black, Hispanic, and lower-income students are not only less likely to enroll in college than their White and higher-SES peers, they are less likely to complete a degree if they do.³ As with their performance on

Table 4.2 Proficiency levels in mathematics, PISA 15-year-olds

Level	Students are able to
1	"answer clearly defined questions with routine procedures"
2	"make direct inferences and provide literal interpretations"
3	"execute sequential procedures with basic reasoning"
4	"integrate assumptions and connect to real-world arguments"
5	"compare and select strategies to develop complex models"
6	"develop and communicate complex models for novel contexts"

to one-half of students qualifying for free or reduced price lunch exceed performance level 2.

²Recent high school completers are 16- to 24-year-olds who completed high school during the calendar year.

³By reporting enrollment and persistence only for *recent* high school completers (CPS) these figures overlook the

Fig. 4.1 Math distribution by school poverty, U.S. 15-year-olds, 2012

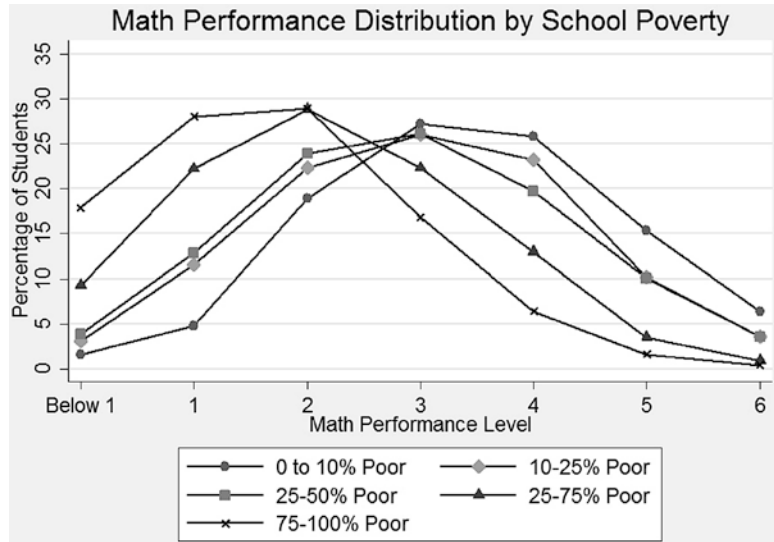
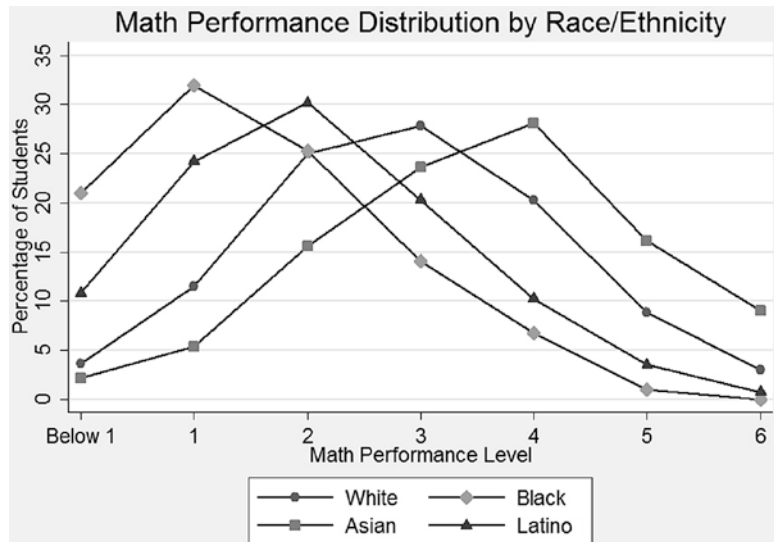


Fig. 4.2 Math distribution by race/ethnicity, U.S. 15-year-olds, 2012



important increase in “non-traditional” college students (CITE). Thus, enrollment rates are likely understated because of the omission of older students, while persistence rates are likely overstated because of the omission of students who begin postsecondary education part-time.

Because percentages have a ceiling of 100% and a floor of 0%, assessing change through percentages is often misleading. Odds ratios provide a better indicator. Odds ratios between High/Mid SES are 2.75, 2.76, and 2.22 across cohorts respectively. Mid/Low SES odds ratios are 1.74, 1.35, and 1.83, and High/Low SES odds ratios are 4.81, 3.74, and 4.05 across the cohorts, respectively. The advantage of High SES students compared to Mid and Low SES students is extremely large.

the PISA assessments, Asian American students outperform White students, both attending and completing college at higher rates.⁴

The tables above report the connection between socioeconomic position and racial/ethnic category on the one hand, and achievement or attainment outcomes on the other. Yet, these outcomes are produced by opportunity and treatment

⁴Degree completion rates may not differ significantly. NCES QuickStats does not provide standard errors for BPS.

Table 4.3 College enrollment and persistence (%)

	Recent high school completers enrolled in 2- or 4-year college ^a (standard errors in parentheses)						Attainment by 08–09 for students starting bachelor’s in 03–04 ^b		
	1992		2002		2012		BA	AA	Neither
<i>Total</i>	63.2	(0.92)	63.7	(0.78)	66.8	(0.94)	63.2	2.9	33.9
<i>Socioeconomic status^c</i>									
Low	43.6	(2.60)	50.9	(2.14)	50.3	(2.63)	51.7	2.7	45.6
Middle	57.4	(1.26)	58.4	(1.08)	64.9	(1.26)	64.3	3.6	32.1
High	78.8	(1.38)	79.5	(1.20)	80.4	(1.59)	77.7	1.7	20.6
<i>Race/ethnicity</i>									
White	64.2	(1.06)	66.5	(0.97)	67.6	(1.12)	67.4	3.3	29.3
Black	50.0	(2.98)	57.3	(2.33)	60.5	(2.64)	47.6	2.2	50.2
Hispanic	58.2	(5.04)	54.8	(2.75)	65.9	(1.99)	47.5	2.5	49.9
Asian	–		–		82.3	(3.59)	73.0	0.4	26.6
Other	–		–		–		56.6	2.6	40.8

^aSource: NCES tabulations from Current Population Survey (CPS)

^bSource: BPS:2009 Beginning Postsecondary Students, NCES QuickStats

^cSES for enrollment rates is provided by the CPS simply as “low,” “middle,” and “high.” From BPS these groups are based on dependent students’ parental income in 2003–2004 (lowest 25%, middle 50%, highest 25%)

processes within education. If there are class and/or racial/ethnic inequalities in in-school opportunity and treatment, then observed class- and racial/ethnic-linked differences in outcomes are at least somewhat to be expected. Are there opportunity and treatment differences by race and class?

Table 4.4 addresses opportunity, and indicates that White and Asian students are two to three times as likely to enter gifted and talented education (GATE) than are Black students. At the same time, Black students are more likely than White students, and four times more likely than Asian students, to be assigned to special education. And, while in 2009 nearly two-thirds of Asian students enrolled in Advanced Placement courses, less than a quarter of Black students enrolled in Advanced Placement courses. Advanced Placement also tracked with school poverty, as the poorer the school, the less likely students were to enroll in Advanced Placement courses.

Table 4.5 continues the documentation of difference. In 2007, Black students were over 2.5 times more likely to be suspended than were Whites, and over 9 times more likely to be expelled than were Whites, even though research shows Blacks have infraction rates comparable to (e.g., McNulty and Bellair 2003) or lower than (e.g., Bachman et al. 1991) Whites. Poorer

schools also had higher police presence than did wealthier schools, suggesting students in poorer schools engage their learning under the watchful, possibly intimidating, and potentially anxiety-inducing gaze of state surveillance officers. These differences in students’ experience of schooling certainly contextualize achievement and attainment differences analysts have documented. Taken together, the information provided in Tables 4.1, 4.3, 4.4, and 4.5 indicate that both processes and outcomes are unequal, and connect in multifaceted and intertwining ways.

Many theories have been advanced to explain the race and class achievement gaps described above. The remainder of the chapter focuses on ten key theories of racial/ethnic and class inequality. We select these theories based on criteria we establish in the next section.

4.3 Theories of Inequality

We focus on theories because they are the tools by which we can interpret the changing facts of inequality. We first convey criteria that all theories of inequality must meet. Then, we describe the characteristics of expansive and narrow theories of inequality.

Table 4.4 Inequalities in opportunity: special education, GATE, and College prep.

	Percent in SPED ^a	Percent in GATE program ^b		Percent of graduates who earned dual credit or AP credit ^c			
				Dual credit		AP courses	
	2007	2004	2006	2005	2009	2005	2009
Total	4.55	6.70	6.70	8.9	9.3	28.8	36.3
		(0.05)	(0.04)	(0.60)	(0.76)	(0.68)	(0.94)
<i>Race/ethnicity</i>							
White	4.03	7.90	8.00	10.0	9.7	29.8	37.3
		(0.07)	(0.07)	(0.73)	(1.00)	(0.86)	(0.95)
Black	6.59	3.50	3.60	4.7	6.4	18.3	22.2
		(0.05)	(0.05)	(0.80)	(0.99)	(0.97)	(1.00)
Hispanic	4.95	4.30	4.20	7.7	10.8	28.5	33.8
		(0.05)	(0.04)	(1.10)	(1.18)	(1.29)	(1.30)
Asian	1.78	11.90	13.10	9.2	9.2	47.2	66.3
		(0.20)	(0.29)	(1.25)	(1.46)	(2.25)	(2.56)
<i>Percent of students in school eligible for free or reduced-price lunch</i>							
Less than 25%	–	–	–	9.8	9.3	32.9	44.9
				(1.32)	(1.56)	(1.27)	(1.72)
25–49.9%	–	–	–	9.6	9.2	24.9	31.3
				(1.31)	(1.25)	(1.16)	(1.40)
More than 50%	–	–	–	5.9	9.1	24.5	28.6
				(1.32)	(1.33)	(1.46)	(1.64)

^aFigures refer to students of all ages receiving Special Education due to a “specific learning disability” or being “emotionally disturbed” (these subgroups were chosen because they are likely more discretionary than physical disabilities, autism, or “mental retardation”). Source: U.S. Department of Education, Office of Special Education Programs (OSEP), 2007 [NCES Table 8.1b]

^bFigures refer to elementary and high school public school students in Gifted and Talented Education programs. Source: U.S. Department of Education, National Center for Education Statistics, High School and Beyond Longitudinal Study of 1980 Sophomores (HS&B-So:80/82), “High School Transcript Study”; and 1990, 1994, 1998, 2000, 2005, and 2009 High School Transcript Study (HSTS) [NCES Table 225.30]

^cNumber and percentage of public high school graduates taking dual credit (courses that earn both high school and college-level credit), Advanced Placement (AP), and International Baccalaureate (IB) courses in high school. Source: U.S. Department of Education, National Center for Education Statistics, 2000, 2005, and 2009 High School Transcript Study (HSTS) [Table 225.60]

4.3.1 Theoretical Criteria

We agree with Silberberg (1990, p. 10) that “A theory, in an empirical science, is a set of explanations or predictions about various objects in the real world.” For claims to coalesce into a theory five criteria must be met. First, the claims must reference *conceptual* entities (e.g., classes, ethnic groups). These entities are conceptual in that no pure example of the entity may exist. For example, essentialists notwithstanding, no member of an ethnic group is *only* a member of an ethnic group. Consequently, one can never attain the *pure* form of the conceptual entity. Even so, to be a theory one or more claims must reference conceptual entities.

Second, it must be possible to map the conceptual entities to observable entities or phenom-

ena. Were this not possible evaluation of the theory would also be impossible. Indeed, if one cannot map conceptual entities to observed entities, doubt arises as to whether the statements are relevant for the real social world.

Third, the claims, once mapped onto real entities, must imply some observable patterns, events, outcomes that may or may not pertain. That is, there must be multiple possible states of affairs, and the claims and the mapping must imply at least one fewer state of affairs than is otherwise possible. In other words, the implications must be falsifiable.

Fourth, the postulates cannot be internally contradictory. One cannot claim, for example, that $A = B$, $B = C$, and $C \neq A$. If a set of claims are internally contradictory it is impossible to assess the veracity of the claims.

Table 4.5 Inequalities in treatment: discipline and indicators of potential discipline^a

	Suspended		Expelled	
	2003	2007	2003	2007
Total^b	20.4	24.5	3.9	3.2
White	18.1	17.7	3.2	1.1
Black	30.2	49.0	8.5	10.3
Hispanic !	21.9	26.5	3.6	4.1
Asian/Pacific Islander !!	11.6	12.8		
	2011–2012			
	Random metal detector checks		Daily presence of police or security	
	(%)	se	(%)	se
Total (public schools)^c	5.0	(0.32)	28.1	(0.51)
Less than 25%	1.9	(0.45)	26.3	(1.39)
26–50%	2.2	(0.40)	24.1	(0.99)
51–75%	5.3	(0.65)	25.8	(1.21)
76 or More	9.5	(0.88)	36.2	(1.52)

! Interpret “expelled” data with caution. The coefficient of variation (CV) for this estimate is 30% or greater
 !! Interpret “suspended” and “expelled” data with caution. The coefficient of variation (CV) for this estimate is 30% or greater

^aTables included both discipline and potential indicators because statistics (from public-use data) were available only broken down by either race or class for each

^bTotal includes other racial/ethnic groups not shown separately. Source: U.S. Department of Education, National Center for Education Statistics, Parent and Family Involvement in Education Survey of the National Household Education Surveys Program (PFI-NHES), 2003 and 2007

^cSource: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), “Public School Principal Data File” and “Private School Principal Data File,” 2011–2012

Fifth, the postulates cannot be tautological. One cannot claim, for example, that $A = B$, and $B = A$. If a set of claims are tautological, nothing is gained by assessing the claims.

Sociological theories are usually conveyed informally, in words alone. Formalization of theories—often their translation from words to mathematical relations—can make it easier to see and root out tautologies and contradictions. The dearth of formalization means that it is possible that some claims offered as a theory may someday be shown to fail to satisfy one or more of the criteria above. However, without formalizing the theories, we use these criteria to select theories for attention.

4.3.2 Characteristics of Expansive and Narrow Theories

The most expansive theories of inequality are general, dynamic, and identify mechanisms. The

narrowest theories of inequality are specific, static, and merely correlational.

Generality What we call *specific* theories apply to only one outcome and/or apply to only one categorical system. In contrast, general theories of inequality apply to multiple outcomes and multiple categorical systems. So, for example, a specific theory might explain only class inequality in test scores, which is less general than a theory that explains inequality with respect to both class and race in test scores and college entrance. Parsimony is a valued criterion for theories to satisfy and, all else equal, a general theory that explains multiple outcomes for multiple social divisions is more parsimonious than is the sum of specific theories needed to explain each single outcome for each social division.

Dynamics All theories of inequality focus on some form of the XY relation in Fig. 4.3. The

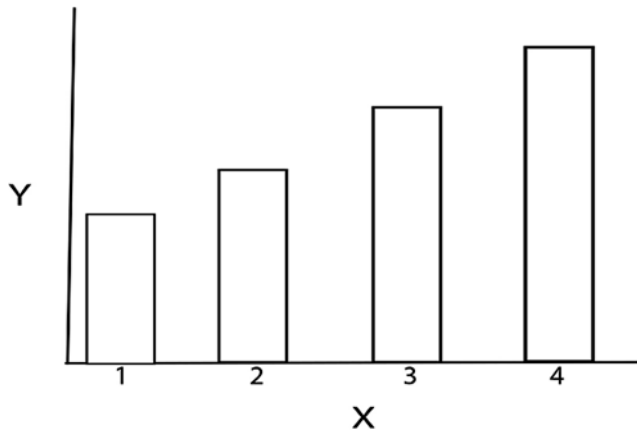


Fig. 4.3 Re-labeling positions in a less than fully enlightening way

A: X = Class categories, 1 = underclass, 2 = working class, 3 = small proprietor, 4 = capitalist

B: X = Racial/ethnic groups, 1 = Blacks, 2 = Latino/as, 3 = Whites, 4 = Asians

C: X = Amount of financial resources, 1 = None, 2 = A little, 3 = Some, 4 = A lot

D: X = Enjoys school, 1 = None, 2 = A little, 3 = Some, 4 = A lot

E: X = Number of teachers certified, 1 = None, 2 = A few, 3 = About half, 4 = Almost all

relation may be linear or curvilinear; positive or negative; and reflected in a bar graph as in Fig. 4.3 (for categorical X variables), in a line-graph (for continuous X-variables), or in other ways. Given our focus, in Fig. 4.3 X might indicate parents' class category, and Y might be measured achievement (e.g., test scores). Note, before we proceed, that the bars *summarize* the relationship. Surely, some persons in category 1 on X obtain higher Y than the bar indicates. Some persons in category 1 on X obtain lower Y than the bar indicates, too. The claim is not that every person is right at the level of the bar; the claim is that the bars summarize differences in the averages for persons located in different positions on X. If there were no average differences, all the bars would be the same height, and Y would be mean independent of X (Goldberger 1991, pp. 61–63), suggesting no causal effect of X on Y.

The differences in the heights of the bars reflect the relationship between X and Y, and that relationship is the fundamental matter to be explained. Many claims focus so much on the specific relationship in the data that the explanations threaten to provide mere substitute labels for the observed relation. So, for example, notes A and B in Fig. 4.3 reflect two variables known to be associated with education outcomes. Note C

makes the very plausible claim that financial resources are associated with education outcomes. However, as an explanation of the XY relation, the claim in note C simply replaces 1, 2, 3, and 4 class categories with labels for financial resources: None, A little, Some, and A lot.

The explanation that children who attend schools that match their culture do better may be offered to explain racial differences in achievement. But, again, this threatens to simply substitute note D for note B. A similar substitution—for notes A and/or B—is offered by note E.

True though the claims expressed in notes C, D, and E may be, the simple re-labeling does not take us very far or, rather, it takes us in one possibly helpful direction, but not in another one. A simplistic example may make the point. The re-labeling may take us to an assessment of what an individual student with a given value of X might do to perhaps change their prospects on Y. If students in category two average lower achievement than their category three peers, the re-labeling by note D suggests that category two students might deepen their familiarity and understanding of the culture of the school, and then their performance on Y might improve. Or, if one is uncomfortable with a blaming the victim approach, one could use the re-labeling of note D to claim that schools

attended by mostly category two students should become more culturally matched to that specific population of students. Note that both counsels *leave the relation intact; both simply change the score on “cultural match” for some students in some schools.*

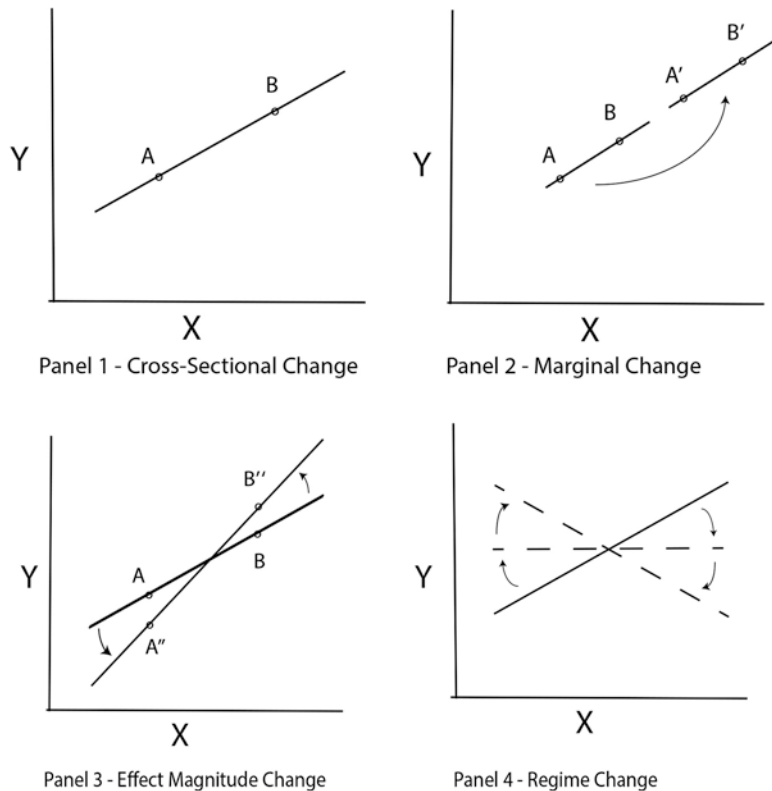
The direction the re-labeling does not go is toward telling us why the heights of the bars are sloped as they are, and not more equal (flatter sloped) or less equal (steeper sloped). To determine what makes slopes steepen or flatten is a complex matter, but one essential part of the task requires embedding any single claim in a coherent web of claims. Together such a web would provide resources to aid us in understanding the *dynamics of inequality*, not simply offer a possibly tautological, often highly individualistic re-labeling of observed patterns.

To clarify, there are, of course, multiple kinds of change. Claims about inequality necessarily address at least one. Panel 1 of Fig. 4.4 traces the most common kind of change claim-sets reference. The variable X represents the variable

along which inequality is a concern; for example, in our work the X-dimension could be socioeconomic status/class. The Y-variable, therefore, would be the outcome that is distributed unequally—in our case it may be measures of educational attainment (years of schooling, proportion obtaining a bachelor’s degree), cognitive achievement, or some other education treatment or outcome. In Panel 1 entities at point A on X have certain values on Y; moving an entity from point A to point B will give them higher (expected) values on Y. This is the most common kind of change inequality analysts address. We term this kind of change *cross-sectional change*, which should signify that difference between persons at points A and B, *not* change (i.e., *not* movement from point A to point B), has actually been studied.

In Panel 2 entities at point A move to point A', while entities at point B move to point B'. Both moves in Panel 2 constitute change, but obviously the order of the entities on Y remains *unchanged*, and, indeed, the amount of inequality

Fig. 4.4 Types of change



is also unchanged. Essentially, what changes in Panel 2 is the marginal distributions of X and Y. Both X and Y are higher after the change. However, the relation between them is unchanged. We term this kind of change *marginal change* because all that has changed is the marginal (i.e., univariate) distributions of X and Y.

An example of marginal change might be helpful. If all prices, including the price of labor (i.e., wages) and capital, doubled, everyone would receive 100% more for any sale and everyone would have to pay 100% more for anything they buy. Everyone would have twice as much money as now, but no one would be richer or poorer, as the relation between all prices (as well as everyone's ability to pay) would be unchanged.

Panels 1 and 2 do not contain the kind of change we mean when we indicate that a theory will be dynamic. A dynamic theory is one that can account for possible shifts in the structure of inequality. Panels 3 and 4 more accurately reflect the criterion. In Panel 3, the slope of line AB shifts, which is reflected in line A'B'. We term this kind of change *effect magnitude change*. And, in Panel 4, the slope of the line shifts so much as to reverse the relationship between X and Y, from positive to negative. Such shifts are rare and momentous. For example, the Russian revolutions of 1917 altered the relationship between support for the czar and attainment of cushy occupational positions, taking it from positive to negative. In this sense, such shifts often reflect regime changes; thus, we term this kind of change *regime change*. We present both Panels 3 and 4 to convey that deciding whether a regime has changed is not always straightforward, for it raises the question—how much change in quantity can occur before a change in quality pertains?

The answer to that question must be specific to the issue in question and the theories under consideration. For example, a Marxist could claim that a regime change has occurred if the relationship between capitalist class origins and outcomes moves from above zero (positive) to below zero (negative).⁵ But, there is nothing

magical about zero; it only appears to be the magic number for three chained reasons. First, few social theories calibrate their claims precisely. Second, this means that most theories cannot attach numeric values that will signal important thresholds of change. Third, because of this, most theories are stated in terms or translated into terms of whether statistical relations are positive or negative, thus institutionalizing zero as the key criterion for extracting conclusions concerning a theory. This is clear in that if there were a theory of the nation-state which, once traced precisely, implied that the simple regression coefficient summarizing the XY relation will fall between 1 and 1.5 in "true" welfare state economies, but be higher in laissez-faire economies, observing the coefficient shift over a decade from 1.2 to 1.8 would signify a regime change, from welfare state to laissez-faire. Consequently, just as dynamic theories address changes *within* a regime, more fully dynamic theories also address regime change—they identify thresholds of regime change, and they identify the mechanisms that cause or prevent the crossing of those thresholds. Thus, both Panels 3 and 4 indicate that expansive theories will address the causes of the direction and size of the slope and its change over time, and, given the tenets of the theory and their precision, some more fully dynamic theories can signify regime change.

Microfoundational Mechanisms Relatedly, expansive theories will identify the specific microfoundational mechanisms underlying the XY relation. Inequality is produced and/or maintained by humans acting consciously or unconsciously. Expansive theories are not satisfied with simply observing a correlation between X and Y, nor with simply substituting other terms for the value labels of X. Expansive theories seek to explicitly state the desires, beliefs, opportunities, and actions (Hedström 2005) that coalesce to constitute the microfoundations upon and through which all social entities—institutions, norms, extraindividual structures—are ground, the mechanisms through which they activate their complex, often nonlinear effects. The task is tricky, because the theory must attend to the real

⁵The Marxist might also say that the relationship will be below zero for some specified time, then return to zero.

motivations of real persons even as the theory itself constitutes an abstracted model of the processes at issue. The difficulty of this task may partly explain why the number of expansive theories is dwarfed by the number of narrow theories.

4.3.3 Theories Expansive and Narrow

An expansive theory of inequality will explain multiple outcomes, will explain those outcomes for multiple categorical systems, will explain stasis and change in the XY relation, and will identify the microfoundational mechanisms underlying both static and dynamic relations of interest. The fewer of those features a theory has, the narrower it is.

Certainly, narrow theories have their value. First, a narrow theory is more finely focused, easing empirical assessment. Second, being more focused, a narrow theory is likely to more closely match empirical observation than will an expansive theory. Third, narrow theories can be used as building blocks for more expansive theories.

However, the focus of narrow theories means that one requires many such theories to explain broad phenomena such as inequality in education. As education involves many outcomes, there is insufficient space to survey the set of narrow theories applicable to important outcomes, much less do so for both race- and class-based inequality. Consequently, our review attends only to major expansive theories of inequality. We treat genetics/epigenetics, human capital theory, the Wisconsin social-psychological model, credentialism, structural Marxism, cultural capital theory, (what we label) incorporation theory, oppositional culture theory, relative risk aversion, and effectively maintained inequality. We begin with genetics/epigenetics.

4.4 From Incoherent Genetics to Epigenetics

Old-style biogenetic theorists see educational attainment and achievement as driven by ability, see ability as driven by genes, and see genes as

determined by one's parents (e.g., Jensen 1969; Herrnstein and Murray 1994). To complete the circle, assortative mating, the tendency of mating pairs to contain people of similar levels of education (Kalmijn 2001; Schwartz and Mare 2005), occupation (Kalmijn 1994), and earnings (Sweeney and Cancian 2004), reinforce genetics-based ability differences by race and class (Herrnstein and Murray 1994).

Such old-school views have not been informed by more recent genetic research. Geneticists have long seen DNA as the basic building block of life. However, for DNA (a genotype-level phenomenon) to matter in a living organism (a phenotype) it must be expressed. How DNA is expressed and what determines its expression is a cutting edge area of early twenty-first century research. Notably, epigeneticists have found that determinants of gene expression are directly affected by the environment. An important, crucial finding of this research is that organisms pass not just the DNA, but *the proclivity for expression* to the next generation. Far from deepening the determinism of DNA, this new evidence explains the crucial importance of environment while providing a more precise specification of the mechanisms underlying evolution.

What is meant by *gene expression*? Analogically, imagine one has one blueprint for a 3-bedroom house. One builds two houses in different environments. One house is built on flat terrain in an earthquake zone, while the other is built on sloped terrain in a seismically stable zone. To express the 3-bedroom house blueprint in the former environment one will have to bolt the house to the foundation, while in the latter terrain one may have to sink stilts into the hill on which part of the house may rest. The blueprint, by itself, is insufficient to determine the actual realization of the house in any environment. But the differing elements of each realized house—bolted foundation or stilts—are intrinsic elements without which the house would not be viable for the length of its otherwise designed life. Similarly, DNA, by itself, does not fully determine the actual realization of the living being in any environment. The blueprint analogy is clarifying in that it shows that DNA is insufficient to describe a particular living organism. Yet, the blueprint

analogy is incomplete in that it misses an important implication—epigeneticists are finding that humans, other mammals, and insects experience certain environments that, through identifiable hormonal pathways, affect DNA expression, such that the resulting phenotypes are visible in multiple later generations even after the environment changes (e.g., Lumey 1992).

This epigenetics research means that the nature–nurture dichotomy at the center of the effort to emphasize biological rather than social factors is even more unsustainable than critics have usually maintained. Analysts have already established that the statistical separation of outcomes into that owing to genes and that owing to environment is impossible because genes and environment intertwine to produce observed outcomes (e.g., Daniels et al. 1997). New findings from epigenetics go farther, suggesting that the very expression of an organism’s DNA is affected by environment, and thus the environment fundamentally produces the way in which the very genetic code of the organism is translated into material existence and, in this way, produces the biological endowment of the progeny of that organism (e.g., Meaney 2010). Such research implies that the claim that genes set a limit on the power of social factors will finally be revealed to have been as fundamentally mistaken as opponents (e.g., Fischer et al. 1996) of that view have oft maintained. Indeed, it appears that social factors, including education, not only may nurture native ability, but they may cause the very “native” ability they later nurture.

The old genetics literature made many assertions about education, often calling for the sad but sober acceptance that nothing could be done in the face of the alleged overwhelming power of genetics. The literature on epigenetics has yet to address inequality in education. But the evidence on other issues suggests a much more hopeful posture is warranted. Indeed, such evidence suggests that a society’s level of cognitive performance, as well as inequality in that performance, is a direct function of the society’s tolerance for substandard and unequal environments. The theory identifies a key mechanism, hormonal pathways involving gene expression, and how change

can occur through those mechanisms. And, because epigenetically-informed genetic theories of education potentially address all outcomes, the theory promises to be general. But, to date, the research steps needed to realize the theory’s promise has not commenced for education.

4.5 Human Capital Theory

Human capital theory makes sense of race and class inequality in education, the role of class in inequality in education, and the intergenerational transmission of inequality. The theory posits the following relations. First, adults’ ability and prior investment drive adults’ productivity (e.g., output per unit of time, quality of product per unit of inputs). Investment thus generates a later income stream. Although some versions of the theory focus solely on education and material earnings, the broader version Becker (1962) offers considers multiple kinds of human capital investment (e.g., migration, health care) as well as both material and psychic income. The broader Becker definition is the one we consider here.

Human capital exists along a continuum anchored at one point by general human capital and at the other by specific human capital. In the extreme general human capital raises persons’ productivity in all firms, while at the other extreme specific human capital raises persons’ productivity in one firm, only. Reading provides an example of a skill closer to the general human capital pole, while the Byzantine procedures for requesting a blackboard for a classroom at the University of California-Berkeley provide an example of a skill closer to the specific human capital pole, i.e., of arguably absolutely no value outside the specific campus. Firms are unlikely to pay for general human capital acquisition (e.g., literacy) because if the person so-aided quits the job, some other firm would recoup the returns to the first firm’s investment. But, the closer the training is to the specific (i.e., firm-specific) pole, the fewer firms can gain from the investment, and thus the more likely a firm will pay at least some part of the cost of the human capital investment. Thus, in the face of temporary downturns in firm performance,

firms are less likely to temporarily lay-off those with specific human capital, because once the downturn ends the firm might be unable to rehire the laid-off workers, for many may have found other employment, thereby forcing the firm to pay to assess and hire new employees and then bring new hires up to the same level of specific human capital attainment the laid-off workers had formerly reached. Instead, firms are likely to lay-off those with general human capital. One way that these relations explain the positive association between education and employment is that specific human capital typically builds on general human capital, such that those with specific human capital typically have higher overall education.

Human capital resembles other investments in that the longer persons have to accrue income from the investment, the more likely they are to make the investment. To make an investment the investor must have resources sufficient to pay the costs of the investment. The costs are both direct (e.g., tuition) and indirect (e.g., time). The latter is interesting in reference to human capital because in order to make the investment the investor must spend the time in the activities that embody the investment, and thus must forego any gains that would accrue to spending time in some other activity. The theory phrases this claim in terms of foregone income; the classic example is that in order to attend school full-time a college student must forego the earnings they would have obtained had they taken a paying full-time job. The foregone earnings are added to the cost of tuition and fees to produce the total cost of college attendance. Notably, the above explains why younger persons are more likely to invest in education, for older workers have average higher earnings than younger workers and thus foregone earnings costs are lower for younger persons.

Human capital theory contends that if persons lack money or credit (i.e., loans) to enable them to pay the direct and indirect (i.e., opportunity) costs of an investment, they may fail to make investments they otherwise might make. In this way human capital theory has direct implications for class inequality. First, and most notably, persons with insufficient resources face financial (or credit) constraints that prevent investment and

thereby reduce their later productivity. This challenge becomes an intergenerational one in that children's credit constraint or lack thereof is a downstream implication of the resource limitations or non-limitations of their parents (Tomes 1981; Becker and Tomes 1986). Becker and Tomes (1986) show that only children of wealthy parents do not face credit constraints; children of middle-income and poor parents do face credit constraints that hinder their ability to make optimal human capital investments. In this way human capital theory suggests and explains a high association between parent and child educational attainment. Indeed, as ability is a realized phenomenon partly produced by early childhood socialization, part of the inequality generated by differences in ability are also arguably produced through family differences in human capital, such that even the ability pathway is partly a function of inequality in human capital.

Human capital theory offers many ways to explain racial/ethnic inequality in education. First, if racial/ethnic groups differ in wealth, credit constraints may produce lower investment for members of poorer racial/ethnic groups independent of their ability. Second, if members of a racial/ethnic group are more likely to doubt access to the occupational positions that would allow them to reap the returns of additional investment, perhaps owing to current or historic discrimination (Loury 1992), then the average human capital investment of members of that racial/ethnic group would be expected to be lower than that for others. Third, if different racial/ethnic groups have different health profiles and life expectancies, members of groups with worse health and/or shorter life expectancies should be expected to invest less in education because they will have less time to accrue the benefits of that education.

This third pathway may seem odd to some who doubt that children look into the future, see dim life expectancy prospects, and then reduce their investment in education. But such a criticism caricatures the human capital logic while ignoring the literature on children's decision-making. Recall that human capital investment imposes opportunity costs in the form of other

activities in which one cannot engage while making the investment. Those opportunity costs could entail foregone leisure. Seen in this way, a key reason to forego a benefit in the short term is to obtain a larger benefit in the long-term. Given that some communities may have higher than average doubt there will be sufficient time to obtain later long-term benefits (owing, perhaps, to long-running poor access to or experience with the health care system (e.g., Jones 1981; McBean and Gornick 1994)), the theory suggests that people in those communities will invest less in human capital, on average.

Intriguingly, the empirical evidence is consistent with this third pathway. Research indicates that not only are adolescents who doubt they will live to age 35 more likely to begin selling drugs, but also, the higher the proportion of schoolmates who doubt reaching age 35, the more likely the adolescent is to begin selling drugs (Harris et al. 2002). These findings are consistent with the third pathway above.

The clear generality of human capital theory does not imply only as grim conclusions as the above empirical relations may suggest, for the theory contains the possibility of change. If investment returns and/or financial constraints change, inequality will likely change, too. With respect to the role of race and class inequality in education outcomes, changing the financial constraints to investment can alter the role of race and class in educational attainment and achievement. And, with respect to the role of education in producing class inequality, changing the returns to education can, by definition, alter the role of education in class inequality. However, the direction of any change in either case depends on implementation and other factors beyond (but perhaps related to) human capital theory. For example, whether reducing financial constraints on early childhood education will raise or lower race and/or class inequality may depend on the means by which the financial constraints are reduced, how widespread the reduction is, and how childcare and education providers respond to the reduction.

4.6 Wisconsin Social-Psychological Model

The Wisconsin Social-Psychological Model of Status Attainment (aka the Wisconsin model) addresses race and class inequality in educational attainment, placing a social-psychological factor at the center of the process of educational attainment, occupational success, and earnings (e.g., Sewell and Hauser 1980; Hauser et al. 1983). The *key* factor in the Wisconsin model is significant others' influence, for the theory asserts that a primary conduit of social background factors' (e.g., parents' earnings) causal effect on later outcomes works through this chokepoint.

Figure 4.5 reveals the structure of the claims at the conceptual level. Both academic performance and family socioeconomic position—measured by parents' education, father's occupation, and family income—cause significant others' influence, which is measured via students' report of their parents' and teachers' encouragement for college and peers' plans for college. Significant others provide the main conduit through which social background has its effects on adult outcomes, and the effect runs through children's educational aspiration, occupational aspiration, and educational attainment.

Class inequality in producing educational attainment is referenced in the models' relating parent status characteristics to the encouragement of parents, teachers, and peers. But the relation can be explained in one of two ways. One view claims the theory asserts that socioeconomically advantaged parents socialize their children to succeed in school and this leads teachers and peers to encourage those children to seek higher levels of education and occupational success (Kerckhoff 1976). An alternative view claims that teachers respond more positively to socioeconomically advantaged students and that parents select socioeconomically advantaged contexts (e.g., neighborhoods) such that their children's peers will also be encouraging in a matter-of-fact manner. In such neighborhoods it is as obvious that college entry follows high school completion as it is that

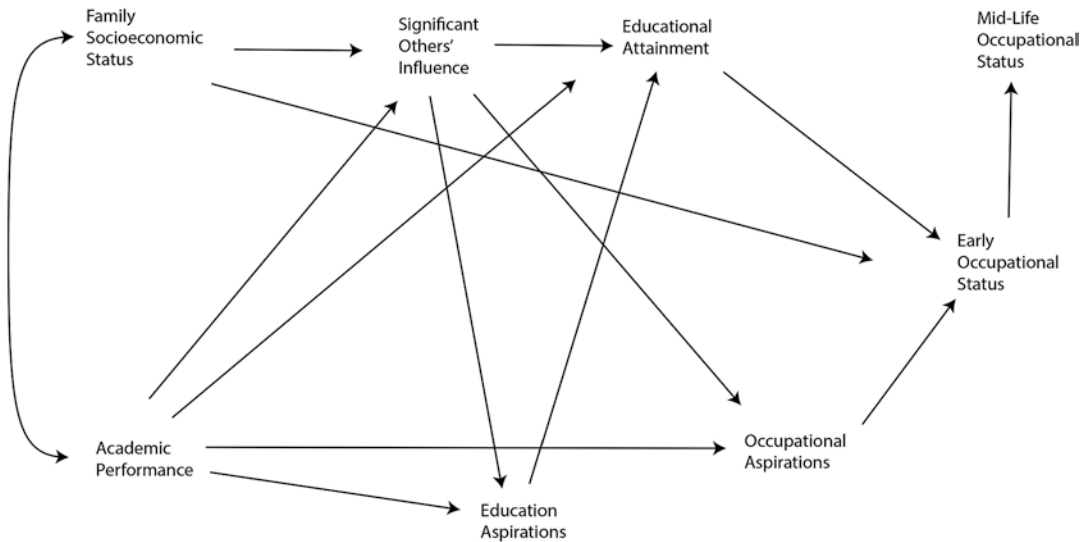


Fig. 4.5 Wisconsin model, trimmed structural version. (Adapted from Table 1, Hauser et al. 1983)

February follows January—for children with such peers, both “truths” are so true that comment on their truth is almost non-existent. The theory, thus, identifies social-psychological connections that link parental sociodemographic characteristics to children’s educational and occupational expectations and outcomes. But the explanatory basis of the linkage remains under study.

With respect to race, a key question the theory poses is whether the process works the same for different racial groups—where to work the “same” is reasonably interpreted as structural coefficients being equal across groups. The evidence of whether the process works the same across races is unclear, however. Some research finds similarity (e.g., Wolfle 1985); some does not (e.g., Kerckhoff and Campbell 1977); and some claims the highly variable statistical methods, sample designs, and populations studied undermine any general answer to the question (e.g., Gottfredson 1981), a conclusion that unfortunately has not changed in the intervening decades (e.g., Morgan 2004). What can be noted is that the Wisconsin model provides an encompassing perspective within which one may assess racial inequality, socioeconomic inequality, and other sociodemographic grounds for inequality (e.g., gender).

4.7 Credentialism

Credential theory comes in two variants. One perspective, which we term the *non-linear effects* version, simply highlights the empirical evidence that the earning gains are boosted for obtaining a credential over and above the gain persons accrue owing to the completion of an additional year of schooling. At major credential-completion years, such as college graduation (e.g., Goodman 1979; Grubb 1992, 2002), analysts have observed such non-linearities.

Collins (1974, 1977, 1979) offers what we term a *monopolization process* version, which is a more complex version of the theory that subsumes the possible non-linear effects of credentials into a wider discussion of the genesis of specific credentials as markers of earnings-enhancement. Collins (1979) argues that credentials are the result of and resource for a joint, complex process of ethnic status competition and occupational professionalization.

It is well-known that members of a field that successfully secures the designation “professional” obtain earnings and other advantages (Klegon 1978). One mechanism that can increase earnings is professionals’ control of certification to practice the profession, as professions

generally obtain largely independent control of certification (Greenwood 1957) on the argument that only they, guided by a code of ethics, have sufficient expertise to evaluate competence and recognize appropriate conduct of the discipline (Mitchell and Kerchner 1983).

In a context of ethnic competition, in which ethnic groups attempt to dominate particular occupational niches, the resources of professionalization are quite useful. The ability of professions to certify practitioners facilitates reducing competition between co-ethnic peers, just as the same resource facilitates reducing competition between professional colleagues. Notably, controlling the certification process facilitates maintaining scarcity as well as barring persons whose sociodemographic category will lower the status of the profession. Maintaining scarcity and the social status of practitioners can help erect a floor beneath earnings for the profession.

Schools enter this process as a cite for certification, but schools are not independent because for a field designated as a profession the faculty involved in teaching the material will themselves tend to be certified practitioners. Consequently, professions and would-be-professions turn to the school—first the high school, then the colleges, and later (perhaps) post-graduate institutions—to certify at least some stages of the training deemed necessary. This position becomes clearer upon noting that the placement of occupational training inside schools is a historically recent phenomenon (Benavot 1983, p. 64; Jacoby 1991).

This variant of credentialing theory identifies the role of signaling amongst firms as key to explaining why firms make college (for example) a prerequisite even for jobs whose tasks (e.g., filing, keyboarding, simple mathematics) do not require college training. Basically, firms signal their quality to important others (e.g., clients, regulators) by requiring high levels of education for even many rudimentary jobs.

The stark nonlinear effects version of credentialism theory is more directly focused on how education affects class (e.g., earnings, wealth). But, because the broader monopolization process variant highlights class- and ethnic-based efforts to erect barriers to entry and monopolize occupa-

tional niches, it focuses on both race/class effects on education and later education effects on class. Because monopolizers can extract rents (Sørensen 2000)—payment over and above the level of productivity—and non-monopolizers cannot, credential theory implies an increase in inequality along lines of race and class. Notably, by linking processes assigning earnings to occupations (e.g., firms' reward structures), prerequisites (e.g., education credentials) to positions (e.g., jobs), and racial/ethnic closure, this more complex version of credentialism theory becomes potentially relevant for the intergenerational transmission of inequality.

4.8 Structural Marxism

In *Schooling in Capitalist America*, Bowles and Gintis (1976) investigate the function of education in social reproduction. They argue that, rather than developing cognitive skills that foster meritocratic social mobility, the primary function of the school is to prepare students for work in (their ascribed status in) the capitalist labor market. They support this argument in three ways. First, although cognitive skills are important in the labor market, they show that this only partly explains the advantage attributed to more years of education, with personality traits signaling conformity having notable additional effects (Bowles and Gintis 1976, pp. 137–139). Second, children reproduce their parents' socioeconomic status at rates that could not be fully explained by either their inherited cognitive advantage or by the elite educational opportunities they are afforded. Finally, the authors argue that historically in the United States, periods of school reform have tracked periods of change in the structure of labor.

Based on these patterns, Bowles and Gintis argue that education prepares students for the stratified labor market through what they call the *correspondence principle*. The correspondence principle refers to the parallel between the social relations of labor and the social relations of education. In the capitalist context the correspondence principle implies that schools inure students to the types of hierarchical relationships

that are characteristic of corporations. Rather than cooperation, students are encouraged to compete—or, more accurately, made to believe they are engaged in meritocratic competition—for the few spots at the top, and only those who secure these school positions are given the tools for autonomy and advanced critical thinking reserved for the capitalist elite. Rather than fostering an actual meritocracy, schools reinforce students' place in the educational hierarchy beginning at a very young age and, by “correspondence,” cultivate the impression that workers arrive in the only position in the hierarchy of production for which they are inherently qualified.

Melvin Kohn and colleagues (e.g., Kohn and Schooler 1969) highlight a similar correspondence between men's occupation and the values they hold for their children, such that upper-class men value self-direction, a useful orientation in jobs that, within circumscribed limits, require creativity. In contrast, working-class men value conformity and rule-following, an essential orientation given the much more constraining coercion of the shop floor. Kohn implicates education in the formation and maintenance of these values insofar as it provides the space for intellectual flexibility for some students and fails to provide it for others, foreshadowing Bowles and Gintis' correspondence principle. Put together, these theories suggest that working-class students are not only less likely to be given the opportunity in school to engage and enhance their critical and creative thinking skills, but they are also less likely to have parents who emphasize the fostering of critical and creative orientations as the purpose of education.

The correspondence principle offers a grim perspective on the role of education in the potential for social mobility of lower-income and minority students. By beginning from disadvantaged positions, these students are nearly guaranteed to be placed low in the initial educational hierarchy and, if the correspondence principle holds, are unlikely to be given the tools to struggle their way out of this position. Moreover, once in the labor force, Kohn argues that the stratification of job-relevant skills and behaviors cements the correspondence between education and class-specific values. Not only this, but because the meritocratic

ideal of education persists, the failure of members of disadvantaged groups to achieve social mobility is understood to result from their own failures.

The structural Marxist theory of class inequality in education, particularly as exemplified by Bowles and Gintis, differs importantly from some theories in that the reproduction mechanism it proposes is institutional rather than individual. It is not the students' resources or aspirations that primarily drive inequality, but rather how the stratified school system shapes and realizes them. Yet, while structural Marxism is generally interpreted as one of rigid reproduction, with schools populated by passive, non-agentic students (e.g., Giroux 1981; McNeil 1981), the theory *actually* relies on individual variation and student action. It is the few working-class kids who succeed in attaining middle-class positions, after working hard in school of course, who are truly indispensable to the perception of a meritocratic competition, a perception that is necessary to maintain capitalism. However, because the mechanism is at the institutional level, altering this mechanism (the correspondence between the social relations of education and the social relations of labor) could potentially change not only the distribution of outcomes and thus inequality, but also the relationship between origin and destination class. The theory is therefore dynamic. Finally, the theory is general because, as we see with Kohn, the concept of “correspondence” can be applied to institutions beyond the school.

4.9 Cultural Capital Theory

In *Reproduction in Education, Society, and Culture*, Pierre Bourdieu and Jean-Claude Passeron (1977) explain inequality, among other phenomena, by contending that schools reward behavior that complies with the norms and standards of the dominant group in a society. Inequality follows because, try as they might, outsiders cannot fully adopt the norms and standards of the dominant group because one's core, one's *habitus*, develops in the family, is impossible to change, and directly affects one's behavior despite one's efforts. Consequently, one's

likelihood of educational success is constrained by one's earliest formative experiences, sedimented into one's habitus.

Bourdieu (1986) describes cultural capital—of which habitus is one type—as a resource one may use to navigate various *fields*. Success in the schooling process and the many labor markets depends on one's deployment of cultural capital in such fields. One does not deploy cultural capital in a neutral arena because there are no neutral arenas, for all arenas have differing mixtures of material and symbolic criteria for success and any criterion inescapably advantages some and disadvantages others. Yet, Bourdieu highlights gatekeeper exclusion on the basis of arbitrarily selected criteria of evaluation that advantage the previously advantaged.

Some readings of Bourdieu assert that markers and mechanisms of success are selected *because* of their ability to legitimate social closure for the advantaged (e.g., Lareau and Weininger 2003). In this view, much that schools' value has no intrinsic utility, but rather serves to distinguish (upper-) middle-class children from their lower-class peers. Others see exclusion via a symbolic as opposed to material dimension as the key theoretical contribution of the concept of cultural capital (Lamont and Lareau 1988), regardless of how the symbols are selected.

If the content and character of childhood socialization depend on parents' cultural repertoire, and cultural repertoires are associated with class location and race/ethnicity, then children's developing habitus will differ by class and race. Consequently, cultural capital theory implies that intergenerational transmission of socioeconomic and racial inequality occurs partly through the intergenerational transmission of culturally distinct repertoires along lines of race and class that do not match socially-constructed definitions of merit. Further, intragenerational inequality—the association between early and later placements of a person in various educational and/or occupational positions—is explained by virtue of habitus.

Cultural capital theory attempts to be nothing short of a complete theory of attainment, and thus is extremely general. The mechanism of attain-

ment is capital, in both material and symbolic forms. The theory is dynamic, but its conclusion is that, alas, *plus ça change, plus c'est la même chose*.

4.10 Incorporation Theory

Ogbu (1987) articulates a theory of immigrant incorporation. He maintains that the posture native-born minority students strike with respect to school depends upon the predominant historical pattern of incorporation of their racial/ethnic group. Ogbu conceives of minority incorporation as either *voluntary* or *involuntary*. Voluntary minorities are those who have entered the U.S. primarily through immigration. The theory suggests that voluntary minorities continue to view their opportunity structure in relation to that of peers in their ancestral country. Further, voluntary minorities can explain difficulties, inequalities, and poor treatment by their lack of knowledge of their newfound land. Thus, they view the returns to education favorably even though they may be lower than for natives, because voluntary immigrants anticipate better returns for later generations. With this posture, voluntary minorities engage school in ways that can facilitate successful performance.

In contrast, involuntary minority groups are those who “were *originally brought into United States society involuntarily* through slavery, conquest, or colonization” (Ogbu 1987, p. 321, emphasis in original). Native Americans, Native Hawaiians, and African Americans are primary examples in the United States. The phenomenon is not confined to the United States, as many examples exist, including the Burakumin in Japan, the Maori in New Zealand (Ogbu 1987, p. 321), travelers in Eastern Europe, and more (Fischer et al. 1996, p. 192, Table 8.1). Involuntary minorities and their children cannot explain difficulties, inequalities, and poor treatment by lack of knowledge of their homeland. Historical enslavement, conquest, or colonization echoes in contemporary poor treatment, creating a clanging inconsistency with any expectation of fair returns now or better returns for later generations. This

history of unfairness makes education a poor investment.

Some analysts point to an “immigrant paradox,” in which children of some immigrant groups attain higher levels of education than their native-born peers on average, an advantage that tends to dissipate or even reverse by the third generation (Rumbaut 1999; Perreira et al. 2006). The “immigrant paradox” basically compares better than expected performance of the first and second generation with worse than expected performance for later generations. Evidence suggests the “paradox” may be explained by considering the educational context of immigrant-sending countries (e.g., Feliciano and Lanuza 2017). But even if the paradox were to hold, it suggests that incorporation into a society where racial stereotypes and White advantage are pervasive may produce sustained disadvantage relative to native-born Whites, unravelling initial voluntary immigrant optimism and fostering disengagement among some immigrant groups.

According to incorporation theory minorities’ initial reception is critical, as history cannot be re-run. Thus, incorporation theory implies strong inertia in the inequality between groups. By explicitly theorizing stasis even as conditions may change, their theory satisfies our criteria for dynamic theories of inequality.

4.11 Oppositional Culture

In *Learning to Labour*, Willis (1977) studies “the lads,” a White, male working-class peer group at a single school in England. Resigned to their fate as manual laborers, in a town where there are virtually no available alternatives, these young men develop a hypermasculine counter-school ethos that values common sense over book knowledge and measures worth through physical and sexual prowess. Yet, Willis also studies the “ear’oles” who, despite sharing job prospects similar to the lads, uphold the meritocratic ideal of education. Although it is the “lads” who are typically considered the noteworthy case because they reject school authorities’ orientation towards educa-

tion, it is at least as important to keep the ear’oles in mind as we consider race and class inequalities in education. Their existence raises important questions about whether peer subcultures offer an adequate means of explaining variation in the correspondence between school and work.

Although Willis’s theory is based on class—and the White male subculture he describes is propped up by rampant racism and sexism—the most famous school subculture theory, oppositional culture, aims instead to explain racial inequality in education. From this theory, the “burden of acting White” hypothesis (Fordham and Ogbu 1986; Ogbu 2003) states that Black students view academic achievement as a “White” enterprise and therefore resist this path so as not to be labeled a traitor to their race. According to this theory, minority students perceive that their efforts and achievement in school will result in fewer career opportunities than that same effort or achievement would produce for White students. As a result, involuntary minority students, particularly Blacks, demonstrate resistance to school and negatively sanction their high-performing co-ethnic peers. Ogbu hypothesizes that it is this racialized rejection of education that best accounts for the persistence of the achievement gap between Black and White students.

However, Fordham and Ogbu’s (1986) original research that proposed the theory used a poor sample design (Lucas 2016) that prohibited the drawing of *any* conclusions beyond the specific students studied, while at the same time conflating labels such as “brainiac” with Whiteness. Similarly, the premise that involuntary minority students (Ogbu 1987) reject education or view achievement as White has been largely discredited (e.g., Ainsworth-Darnell and Downey 1998; Downey et al. 2009; Harris 2006). Other work, including Willis’s, also clearly demonstrates that disengagement from schooling is not exclusively a minority phenomenon (Willis 1977; MacLeod 1987; Tyson et al. 2005). Yet, the legacy of understanding some students’ underperformance in terms of a conflict between their racial/ethnic identity and dominant cultural values endures.

Notably, Prudence Carter (2005) finds that students do not interpret academic success as a White trait, but identifies the importance of “keepin’ it real,” or being authentic, to students’ evaluations of their peers (Carter 2003, 2005, 2006). Carter does not suggest that students are never negatively sanctioned by their peers for “acting White,” but rather that this epithet was used on students regarded as snobs, not on students regarded as pursuing academic excellence. Thus, the epithet’s use is distinct from students’ opinions about the institution of education, which she finds to be uniformly positive among her sample of Black and Latino/a adolescents in Yonkers, New York. Rather, educational achievement is associated with their ability or willingness to enact the behaviors and competencies valued by the school. Students who straddled school (i.e., dominant) and nonschool (i.e., non-dominant) competencies were the most socially successful and also performed well academically. Flores-González (2002) similarly finds that the ability to maintain and meld diverse identities is also key to persistence in high school in her sample of Puerto Rican adolescents.

While Carter does identify a group of students who behave in a manner that echoes Ogbu’s “opposition”—using “Black English Vernacular,” putting forth minimal effort in school, and demonstrating high ethnic-centrality—and the hegemonic masculinity of “the lads,” she finds that these students regard education as important and do not view achievement as White. Rather, the seemingly oppositional cultural codes employed by many minority youths were simply intended “to create a coherent, positive self-image (or set of images) in the face of hardship or subjugation” (Carter 2005, p. 57). Thus, although student subcultures arguably exist, evidence does not support the notion that noncompliance is synonymous with rejection of education. Carter identifies students’ ability to negotiate competing sets of values as the operative mechanism in social and academic school success. Understood this way, the theory is general—not only can it be applied to different minority groups, but the reward structure of the school has also been shown to conflict with class-identity expression (e.g., Willis 1977).

The theory is also dynamic because if schools were to change their reward structure to value students’ adaptability (an arguably important life skill), then Carter’s typology could accommodate a different pattern of inequality (e.g., where only the ability to “straddle,” not dominant competencies alone, would predict greater school success).

4.12 Relative Risk Aversion

Relative Risk Aversion (RRA) is offered by Breen and Goldthorpe (1997) to contest cultural theories of inequality while explaining stable class differentials across cohorts, declining class effects across education transitions, and rapidly changing gender effects. RRA accepts that educational opportunities require both financial and cognitive resources. Conditional on those constraints, RRA posits that students (and families) make decisions based on students’ understanding of their likelihood of success were they to follow specific educational paths and their estimation of the probability of attaining sought occupational positions via those paths. The core of the theory rests on three key theorems: (1) Adolescents seek to avoid downward socioeconomic mobility, (2) each educational path entails some risk that students will seek to avoid if possible, and (3) cultural differences are not necessary to explain inequality (Breen and Goldthorpe 1997, p. 238).

With respect to the first theorem, assume the socioeconomic distribution is divided into thirds—top, middle, and underclass. Those hailing from the middle can avoid downward mobility by obtaining middle or top occupations, but those at the top can only avoid downward mobility by reaching a top occupational destination. The theory states that this difference produces different incentives for the level and kind of educational attainment pursued.

With respect to the second theorem, the theory posits that paths that entail demanding educational opportunities are great for those who succeed, but those who follow that path yet fail will encounter worse outcomes than they would have encountered had they succeeded in a less demand-

ing curriculum path. This assumption is the source of the theory's name, relative risk aversion; specifying costs to failure makes it possible for some students to expect to do better by taking less than the most demanding curriculum available. Thus, such students will engage as if risk averse.

With respect to the third theorem, their rejection of the subcultural thesis, Breen and Goldthorpe (1997) posit a society-wide consensus that certain educational pathways are more likely to lead to occupational success. Although students' assessment of their likelihood of *educational* success will depend in part on what they see as their ability, it will not depend on subcultural values, norms, or behaviors.

The theory, thus, explains class and race inequality in education with the same mechanism—socioeconomically disadvantaged students and students from racially and/or ethnically disempowered communities are likely to have parents with lower occupational attainments. Children whose parents have lower occupational attainments have a lower floor their own educational attainments must reach to avoid downward mobility. Although the theory posits lower cognitive ability for students from poor (and racially disempowered) families, the difference in floors for success is sufficient to create educational inequality.

4.13 Effectively Maintained Inequality

Lucas (2001) proposes Effectively Maintained Inequality (EMI), a general theory of inequality. EMI claims that socioeconomically advantaged actors secure for themselves and their children advantage wherever advantages are commonly possible. The theory further contends that all goods have both qualitative and quantitative dimensions. This multi-dimensional nature of goods facilitates the intransigence of inequality, for the theory claims that if quantitative differences are common, the socioeconomically advantaged obtain quantitative advantage. But, if qualitative differences are common, the socioeconomically advantaged obtain qualitative advantage. If this is true, consid-

ering only one dimension may lead analysts to presume a decline in inequality when, in actuality, for example, all that has happened is that the locus of consequential inequality shifted from the quantitative to the qualitative dimension.

EMI has been applied to education almost exclusively (e.g., Esping-Anderson and Wagner 2012). Further, most applications focus on only one aspect of the theory, its assertion that all goods have both qualitative and quantitative dimensions, to highlight inequality in qualitative dimensions of education.

Applying this general theory of inequality to education, EMI explained socioeconomic effects on education in one of at least two ways. When some attain a particular level of schooling whereas many others do not (e.g., high school completion throughout the first half of the twentieth century in the United States), the socioeconomically advantaged use their advantages to secure that level of schooling. However, if that level of schooling becomes widely or perhaps even universally attained, the socioeconomically advantaged seek out whatever qualitative differences there are *at that level*, using their advantages to secure quantitatively similar but qualitatively better education (e.g., qualitatively better, more challenging curricular tracks). Thus, EMI notes that actors' foci may shift as qualitative differences supplant quantitative differences in importance. Alternatively, actors may reference qualitative differences even when quantitative differences are common. Either way, EMI claims that the socioeconomically advantaged will use their advantages to secure both quantitative and qualitatively better outcomes.

Aspects beyond the qualitative/quantitative distinction have not received much attention, even though they are constitutive aspects of EMI. The theory articulated its decomposition of goods into qualitative and quantitative dimensions while also identifying an important role for (student) myopia [aka nearsightedness], inequality (amongst students) in access to information that could dispel the myopia, the discretionary power of (school personnel) gatekeepers, and the possibility of *class-based* (parental) collective action to maintain advantage. School-related

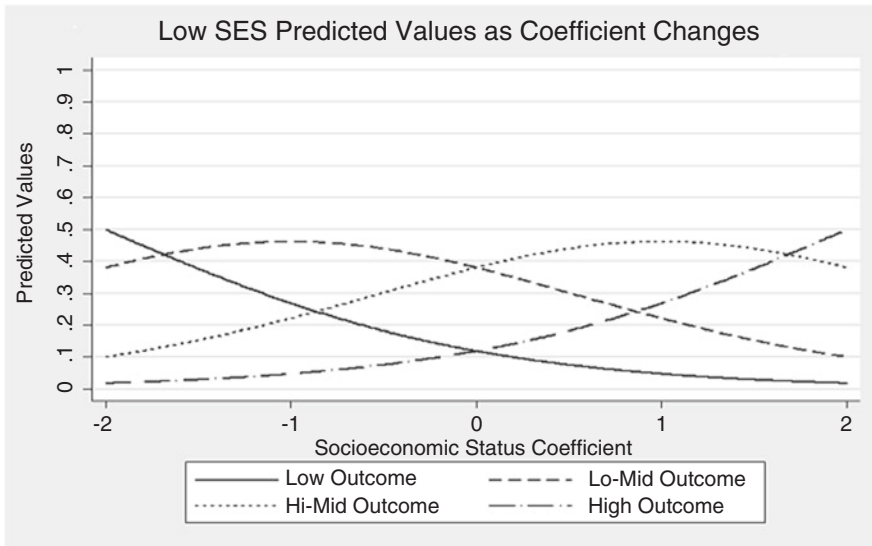


Fig. 4.6 Low SES predicted values as socioeconomic background coefficient changes

labels are placed in parentheses because they translate the general theoretical postulates into the realm of education.

One important feature of EMI is illustrated across Figs. 4.6, 4.7, and 4.8. To test for the qualitative hypothesis of EMI, one must use a categorical dependent variable (e.g., dropout, no academic course, academic low-track course, academic high-track course) and calculate and compare predicted outcome category probabilities for those of low and high socioeconomic background. Figures 4.6 and 4.7, for low and high socioeconomic background students respectively, trace the predicted probability of entering each of four categories of an outcome variable as the socioeconomic background coefficient changes.⁶ EMI is supported if the category with the highest predicted probability differs for those of high and low socioeconomic background. Intriguingly, this means that EMI implies bounds on the socioeconomic background coefficient, for only some coefficients make the predicted outcome category for those of high socioeconomic background exceed the predicted outcome category for those of low socioeconomic background. Given the illustrative

results plotted in Figs. 4.6 and 4.7, Fig. 4.8 sketches the range of coefficients that satisfy EMI.

Most theories of inequality would be satisfied if the coefficient on social background is positive. EMI, however, has a more constrained prediction, for it asserts that myopia, differential information to dispel myopia, gatekeeper discretion, and class-based collective action all work to keep the social background coefficient within a smaller band of values. EMI implies that efforts to move the coefficient outside of that band will encounter serious resistance (Lucas 2017). Thus, for EMI, most positive coefficients would be inconsistent with EMI, making it possible for the association between the outcome and socioeconomic background to be statistically significant but still not support EMI (Lucas 2009), rendering EMI falsifiable even amidst ubiquitous findings showing a positive association between socioeconomic background and education outcomes. Or, in other words, EMI theory identifies the thresholds at which a society shifts from an Effectively Maintained Inequality regime to something else.

The theory specifically addresses change within an EMI regime by denying its consequentiality. In a sense, EMI posits a basic cause à la Lieberman (1985, pp. 185–195)—the aim of advantaged actors to maintain their advantage.

⁶Three thresholds divide the four categories: -2, 0, and 2.

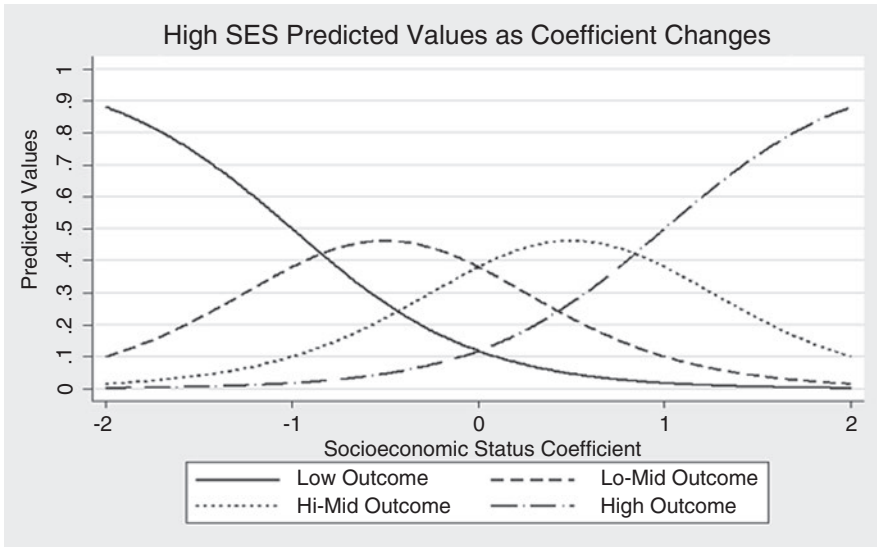


Fig. 4.7 High SES predicted values as socioeconomic background coefficient changes

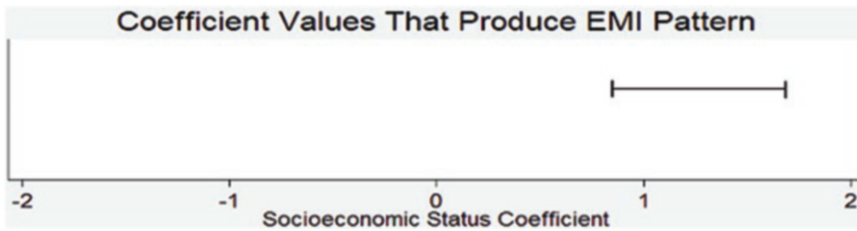


Fig. 4.8 Coefficient values that produce EMI pattern

That cause creates (and thus explains) a diverging trajectories pattern such that children of socioeconomic advantage transition into occupations and earnings niches of socioeconomic advantage while their poor peers tend to make other transitions. However, the process by which these transitions are produced change over time; the stable pattern exists amidst a plethora of superficial causes/pathways through which the basic cause maintains consistent force. In the sphere of education, the superficial causes include the various levels and kinds of education—high school graduation, Advanced Placement courses, honors, International Baccalaureate, 4-year college, small liberal arts college, community college,

professional school, vocational training program, R1 research university, and more. Amidst this plethora of possibilities, the basic cause remains operative—advantaged people secure for themselves advantage wherever advantage is (commonly) possible.

Despite its doubt about overall societal change, EMI posits that some individuals will be able to follow more advantaged trajectories than their disadvantaged origins might suggest. The theory claims that our predictions for disadvantaged students, however, will diverge from those we make for advantaged students, even after we control for academic achievement. Such patterns

reflect the intransigence of inequality and its intergenerational transmission.

4.14 Points of Contact Between and Challenges of Expansive Theories

4.14.1 Selected Points of Contact Across the Theories

Expansive theories might be arrayed as if each offers an entirely separable understanding of the phenomena at issue. Yet, these theories work the same intellectual terrain, so it should come as no surprise that they connect and reinforce each other at some points. To correct the possible tendency of seeing each theory in isolation, we note a few points of contact across the theories.

First, epigenetics can be interpreted as suggesting that educational success partly flows from a genetic basis, but a key part of that basis is etched through environmental pathways. That is, the provision of encouraging environments can create hormonal responses that coax gene expressions conducive to better cognitive performance. Seen in this way, epigenetics implies an important role for encouraging environments, at the molecular level and above. In a way, epigenetics deepens the importance of the environment, for environmental effects are insinuated into the organism in a constitutive way. Epigenetics thus deepens the implications of the Wisconsin model, with its emphasis on significant others' (i.e., parents', teachers', and peers') encouragement, structural Marxism, with its identification of economic and education structures that squelch human potential, incorporation theory, with its distinction between immigrants facing hostile, exclusionary or non-hostile inclusionary responses from natives, and EMI, with its emphasis on gatekeeper ability to encourage (open) or discourage (block) student access to environments that encourage increasing performance. Each of these theories identifies a mechanism that may involve an undiscussed epigenetic pathway through which intergenerational effects of

the mechanisms they highlight can escalate and rigidify.

Human capital theory highlights persons' decisions to invest (in education), accepting such decisions occur under constraint. Both RRA and EMI also prioritize persons' decisions to invest under constraint—RRA with unequal cost constraints, EMI with unequal information constraints and unequal discretionary gatekeeper support.

The Wisconsin model's emphasis on encouragement by others resonates with the social-psychological aspects of incorporation theory, which can be seen as generalizing the set of significant others, with oppositional culture, which suggests that peer evaluations are an important factor in students' attitudes toward and behavior in school, and with RRA, which implies a social-psychological process through its assertion of a role for students' assessment of their likelihood of success along various paths.

Credentialism, in referencing the qualitative category of *professional*, highlights ethnic competition and professionalization as a resource for exclusion, in affinity with structural Marxism's recognition of elites' monopolization of well-remunerated positions, cultural capital theory's notice of elites' erection of arbitrary barriers to their advantage, and EMI's reference to a qualitative dimension and class-based collective action in the allocation of advantaged positions on that dimension.

Structural Marxism, privileging distinctions between categorically differentiated economic positions and identifying stratified pathways to those positions, resonates with incorporation theory's reference to legally-defined distinctions of immigrant incorporation.

Cultural capital theory, with its emphasis on translating capital from one field to another, is consistent with incorporation theory's understanding of the differential valuation of immigrants from different origin countries and with oppositional culture's understanding of differential cultural markets.

Finally, incorporation theory's reference to the differential reception of different immigrants not only may provide the context within which

oppositional cultures may arise and take root, but also may matter for EMI's suggested differential discretionary response of gatekeepers (i.e., gatekeepers may respond differently to voluntary and involuntary immigrants).

The listed points of contact do not exhaust the possible connections between the theories. But, they are enough to draw two conclusions. First, even disparate theories may not deny every aspect of each other, suggesting that if high levels of hostility are observed in scholars' debates, those emotions have more to do with the discussants than with the material for discussion. Perhaps recognizing theories' shared elements may reduce the heat, and increase the light, that dialogue can provide.

Second, because many theories share some elements, adjudicating between theories can be challenging, because shared elements—when confirmed—contribute to concluding in favor of each theory that shares the element. Consequently, one should expect adjudication to require intense study and to be difficult. Difficult though it is, adjudication is an important task. It is to the important task of adjudication to which the penultimate section turns. But first we must consider, why adjudicate? Why not simply accept each theory singly, or see each as contributing one piece to our understanding of racial/ethnic and class inequality in education?

4.14.2 Challenges of the Theories

It may be heartening to observe multiple points of contact across theories, for their existence may suggest some degree of consensus, at least within subsets of similar theories. If consensus is emerging, this may suggest that all is well with each theory, and the task now is to simply see how they fit together. Alas, such an impression is misleading. The collective points of contact are important, but they exist alongside another set of important observations: Although each theory may appear internally consistent initially, closer scrutiny reveals nagging issues with each.

With epigenetics, one challenge is that geneticists have established that many complex tasks require multiple genes acting in concert (Marsh 1997). To discover a genetic connection for such a complex process as learning and/or education seems a daunting task. Thus, at present, epigenetics is a tantalizingly promising theory, its possibility revealed more in our imaginations than in even the beginnings of research.

Human capital theory would seem to require a coherent understanding of productivity, but empirical analysts usually simply assume or assert that earnings track productivity (e.g., Byrus and Stone 1984), a view falsified by decades of sociological research (e.g., Wright and Perrone 1977; Kalleberg and Griffin 1980; Spaeth 1985; Halaby and Weakliem 1993). Once one realizes the uncertainty plaguing the operationalization of productivity, the theory's mechanism is no longer clear and the theory's elegance is seriously endangered.

The Wisconsin model foregrounds significant others' influence, making it the chokepoint of intergenerational status transmission. Teachers are key significant others, and teachers could encourage all students. If teachers encourage all students enough but in patterns that lead to the equalization of overall encouragement across students, downstream outcomes should alter such that *every* child would have and reach high occupational aspirations. Yet, occupational distributions are not only a function of young adult demand for jobs, they also are a function of larger macroeconomic features (e.g., trade surpluses and deficits) as well as employers' supply of occupational positions, such that it is unlikely that every child, no matter how encouraged, will attain high status occupations and earnings. One response is to interpret the Wisconsin model as a static summary of relations for a cohort, but such an interpretation undermines the view of the model as reflecting a causal theory.

Bourdieu has been viewed as identifying the process by which oppression is constructed and maintained by arbitrarily-selected criteria of merit. Yet, because the theory offers no criteria

for what is and is not or can be and cannot be cultural capital, *anything* can be cultural capital, and *all* criteria are arbitrary. While this may make cultural capital theory seem to be incredibly broad, the result is to leave only *political* grounds for contesting criteria of merit, i.e., the only way to contest a theory with integrity is to claim one is disadvantaged by the criteria. But, as someone must always be disadvantaged (e.g., someone must be last in line), any given person's being in the set of disadvantaged persons on the basis of some criterion is hardly good reason to change the criteria. Indeed, even if criteria were to greatly change, the new criteria would still be arbitrary, and thus as susceptible to Bourdieusian critique as former criteria. Thus, cultural capital theory is now and will always be a critique of the status quo, no matter what that status quo is. If the theory cannot extricate itself from this conclusion, it is revealed to be tautological and thus, ultimately, unilluminating.

Credentialism is articulated in line with professional occupations, but very few credentials are actually about traditional or powerful professions. It remains to be seen whether the theory's social closure mechanism is truly class- and racial/ethnic-specific, or even operational, once one broadens the understanding of *credential* to include the burgeoning number of non-professional certificates so as to reflect the experience of the bulk of any cohort.

Structural Marxism is often vilified for an alleged lack of agency (e.g., Giroux 1981), but the actual foundational text rebuts this criticism (e.g., Bowles and Gintis 1976, pp. 143–144). Far more questionable, however, is whether the theory allows non-class-based forms of oppression to matter for education (Davies 1995). It would be difficult to maintain a structural Marxist position while considering the history of Little Rock and Birmingham, or the way in which post-World War II economic structure first rejected than embraced women's paid labor force participation. And, if one makes space for non-class-based grounds for economic action, the theory's understanding of schools is undermined.⁷

⁷Self-described resistance theorists of a post-Marxist bent claim to resolve this problem, but, as Davies (1995)

Incorporation theory implies that the conditions under which immigrant groups entered the country matter. But, research also shows that changing demographics and policy can greatly reduce the impact of the history of incorporation (Lieberson 1980). This raises the question of whether the apparent power of incorporation is real or, instead, epiphenomenal, apparent only because many (most?) groups' treatment does not change as their incorporation recedes into the past (e.g., Cubans welcomed, Mexicans vilified).

Oppositional culture is based in a claim that communities hold antagonistic views toward mainstream success. Yet, research shows late twentieth-century minority elementary school children seeking to succeed in school (e.g., Tyson 2002), and mid-twentieth-century mainstream adolescents rejecting school (e.g., Coleman 1961). Faced with such findings, the origin of students' alleged opposition in *communities* presents a serious puzzle for oppositional culture theory for, if opposition does not originate in disenfranchised communities and only in disenfranchised communities, how can it explain long-standing group-linked differences in education?

Relative risk aversion asserts the existence of a society-wide consensus as to which positions are better, but immigration and concomitant increasing diversity makes the assertion less and less secure. The assertion is important because without it empirical study of RRA mechanisms becomes increasingly difficult, or perhaps even impossible, owing to challenges of statistical identification (i.e., too many parameters to estimate).

Effectively maintained inequality has been found in every nation for which studies assessing it exist (e.g., Lucas 2001 for the United States; Byrne and McCoy 2017 for Ireland; Byun and Park 2017 for Korea; McKeever 2017 for South Africa; Weiss and Schindler 2017 for Germany).

shows, their efforts grow increasingly aspirational and decreasingly tied to empirical evidence, such that, in the main, they fail to satisfy the coherence and falsifiability criteria noted earlier. Thus, we do not include them.

Yet, no research assessing EMI has interrogated EMI's claim of class-based collective action. While the widespread confirmatory research may seem to reflect a powerful theory, failure to assess its collective action assertion raises questions about the mechanisms the theory identifies.

Given the existence of such critical observations for each theory, it appears it would be worthwhile to assess, and even adjudicate, the theories.

4.15 Assessing the Theories

We have offered 10 theories of socioeconomic and racial inequality in education. The large number of theories may reflect real complexity in the phenomenon. In contrast, however, it may instead be a result of sociology's insufficient attention to the task of critically assessing or adjudicating theories. Or, a third option may be more appropriate—it may be that some theories can be combined, ultimately leading to far fewer than 10 theories of class and racial/ethnic inequality in education.

There are at least two ways to proceed. One way is to conduct empirical analyses designed to assess two or more theories simultaneously. A second way is to conduct purely theoretical comparative analyses. Both approaches can reveal whether a theory is viable and/or whether a combination of two theories is worth pursuing.

Alas, purely theoretical assessments of theories are rare in the sociology of education. And, while empirical research is dominant, unfortunately, most contemporary empirical research in the sociology of education focuses on establishing a given theory, rather than critically adjudicating multiple theories. Thus, to illustrate the potential power of work geared to comparing and adjudicating theories, we provide three examples, one purely theoretical and two empirical. The purely theoretical work assesses three theories of inequality, of which we will discuss only two. The empirical studies can be used to consider multiple theories as well, even if the original paper did not.

4.15.1 Example 1: "Stratification Theory, Socioeconomic Background, and Educational Attainment: A Formal Analysis"

Lucas (2009) formally translated EMI and Maximally Maintained Inequality (MMI) (Raftery and Hout 1993) into mathematical equations and then considered those theories in concert with RRA, a theory that had already been expressed mathematically. Working through the equations of these three theories revealed several useful insights. One important finding is that MMI is internally contradictory and tautologous, making it unfalsifiable and thus unworthy of consideration. For this reason, we did not discuss MMI here. Lucas (2009, pp. 491–498) also established that EMI is not a tautology, showing that it is possible to have outcome inequality associated with origins yet reject EMI.

Lucas (2009) also found intriguing yet formerly unrecognized implications of RRA equations, and intriguing possible connections between RRA and EMI. First, the analysis revealed that RRA implies the existence of a phenomenon Lucas (2009) labelled the *Gates Gambit*. Essentially, RRA implies that the only socioeconomically advantaged students who will exit advanced programs are those who believe their chances of matching or exceeding their parents' socioeconomic attainments are better if they drop out. This pattern was named after Bill Gates, an adolescent of high socioeconomic status who, despite scoring 1590 on the pre-renormed SAT, dropped out of Harvard to pursue a career in computers, a decision that appears to have worked for him (Lucas 2009, p. 508, note 5). At the same time, by simplifying RRA equations it was shown that RRA implies that all other high socioeconomic background students will stay in school and enter demanding programs, and they will do so *without* considering their subjective likelihood of succeeding in school. This implication tumbles directly out of the equations specifying RRA (Lucas 2009, pp. 482–483). Thus, despite the summary claims of the non-mathematical sum-

mary of RRA, which state that students consider their likelihood of success in school as they make rational choice decisions of whether to continue, the actual equations of the theory imply otherwise for particular classes of students.

Notably, this RRA claim is consistent with EMI's claim that academically mediocre high socioeconomic background students enter demanding programs while their equally adept low-socioeconomic background peers do not. EMI highlights the use of non-academic resources (e.g., pressure well-off parents apply to school gatekeepers to secure their children's admission to demanding programs) to predict and explain this pattern. Thus, the theories are complementary as follows.

RRA equations imply a pattern of behavior—the entry of mediocre, well-off students into programs for high achievers—but because RRA allows entry to demanding programs only on the basis of merit (e.g., prior achievement) and ability to pay, RRA processes of entry deny the possibility of mediocre well-off students entering demanding educational programs. Thus, RRA equations imply a behavior, but RRA relations offer no means for the behavior to be enacted. EMI, however, by noting the role of gatekeepers holding discretionary power, provides a way for the implications embedded in RRA equations to be realized. Thus, EMI complements RRA by providing a pathway for the outcome RRA equations predict—mediocre high status students' entry to demanding programs. The pathway is gatekeeper discretion.

This is not the only example of how RRA and EMI may be complementary. Another example flows from EMI's effort to rebut the neo-classical economic position that students act with foresight. EMI contended that myopia is differentially distributed, and that it is a feature of the process. It turns out that once one works through the equations of RRA, one finds that RRA implies decision processes consistent with differential myopia. This possible complementarity is powerful because, as a rational choice theory, RRA might be expected to deny myopia. Yet, simplifying the equations reveals that RRA indicates that students of well-off parents utilize a subjective estimate of their likelihood of attaining various occupational positions given a par-

ticular level of success in school, but students of lower socioeconomic status act as if they have no such estimate, i.e., *they do not reference estimates of future occupational success*. This differential is consistent with differential myopia.

Such findings provide new, more focused grounds for empirical research, and, thus, promising opportunities for theory adjudication and/or synthesis. For example, the results imply that analysts interested in adjudicating between RRA and EMI should not devote time to assessing the existence of student myopia, for doing so will not adjudicate between EMI and RRA because both theories predict myopia for some students. Thus, it appears that assessing the coherence of multiple theories can pay large dividends.

4.15.2 Example 2: "A Threat in the Air: How Stereotypes Shape Intellectual Identity and Performance"

Stereotype threat (Steele 1997) occurs when a negative stereotype becomes self-relevant and fear of fulfilling this stereotype actually impedes performance. Stereotype threat has generally been studied in relation to race and gender stereotypes in academic performance, but can be applied to any group, including low-income students, who face negative stereotypes about their performance. Studies have triggered stereotype threat both through the labeling of tests as diagnostic of ability (e.g., Steele and Aronson 1995) and through the presence of a White examiner (e.g., Huang 2009); neither of these designs stipulates the presence of a prejudiced observer or evaluator (e.g., teacher). Thus, the threat is particularly insidious, because it does not require the gatekeeper with which the person interacts to hold the stereotype, it is only necessary that a student be conscious of the stereotype. Opportunities for stereotype threat to occur are many, extending far beyond the school to experiences with family, friends, co-workers, employers, and more.

The implications for class and racial/ethnic inequalities in education flow from the flood of stereotypes students encounter daily regarding the

abilities and relative rankings of different groups of students. It is possible that a constant low level of threat underlies some poor and racial/ethnic minority students' entire school experience.

Stereotype threat resonates with theories that explain educational inequality through expectations. For example, social-psychological processes are the *key* mechanism of the Wisconsin model; the model argues that students' aspirations are shaped by the influence of significant others, with teachers being an important such other. Yet, stereotype threat evidence both intensifies the potential role of teachers, while *broadening* the sources of *influence* by noting that expectations of generalized (i.e., nonsignificant) others can also matter for students' later attainments. Thus, existence of stereotype threat is not only consistent with the Wisconsin Model, it suggests an intriguing elaboration of the model; it is an elaboration because it, too, emphasizes *social-psychological* processes at its core.

Stereotypes develop in historical context, and education-related racial stereotypes tend to track with Ogbu's involuntary (e.g., Black students are less motivated and able than White students) and voluntary (e.g., "Asian" students are model minorities) immigrant designations. In that sense, there is a parallel between the phenomena to which students are responding vis à vis stereotype threat and according to incorporation theory. However, *why* involuntary/stereotyped students underperform differs. Thus, while stereotype threat is consistent with incorporation theory, it is not evidence of the reduced school engagement that the theory suggests. Indeed, a scope condition for stereotype threat to occur is that the person must care about the domain at issue (Aronson et al. 1999), and empirical evidence indicates the strongest, not the weakest, students are affected by it (e.g., Steele 1999). It is only because the student cares about success in the domain at issue that anxiety associated with confirming a negative stereotype rises enough to lower performance quality.

4.15.3 Example 3: Unequal Childhoods

Schools expect (and generally require) that students will interact with teachers and other authorities in certain ways, but students may not arrive at school equally prepared to do so. Lareau (2003) suggests that this is related to the way that parents employ language and discipline with their children. Lareau identifies two different parenting strategies: *concerted cultivation* and the *accomplishment of natural growth*. Concerted cultivation, the child-rearing strategy associated with the middle-class, is characterized by highly structured time, and eventual conversation and negotiation in the practice of discipline. Lareau argues that such practices reflect and facilitate the skills, knowledge, and interpersonal postures rewarded by the school. In contrast, the accomplishment of natural growth, the parenting style more commonly adopted by working-class and poor families, is characterized by unstructured time, more directive language use, and authoritarian discipline. Importantly, Lareau argues that these different patterns of socialization are associated with different levels of comfort and ability in interacting with authority.

These findings parallel those of Kohn (e.g., 1969) and of Bernstein (e.g., 1971), and contribute to research traditions on language use in communities and its impact on schooling. For example, Nystrand and Gamoran (1988, 1991) distinguish authentic and inauthentic questions. Authentic questions are questions to which the asker does not know the answer. Inauthentic questions are questions to which the asker does know the answer. Nystrand and Gamoran (1991) find that authentic questions are associated with greater learning.

Research indicates that middle-class and White communities tend to use inauthentic questions in early childhood language training, whereas other communities use authentic questions (e.g., Heath

1983). When students arrive at school, an institution with a predominance of inauthentic questions, some students, unfamiliar with such an odd language situation—Why would someone ask me a question to which I know they know I know they know the answer?—are more likely to be made uncomfortable or unsure. The resulting befuddlement and hesitation can quickly set students on a path to failure.

Lareau's findings would appear to parallel the correspondence principal and Kohn's work in particular. While Bowles and Gintis focus on the socialization that happens within the school, the contrast between concerted cultivation and the accomplishment of natural growth suggests that the divergence in training for class-stratified positions in adulthood begins before children enter school. Thus, the predicted reproduction is even more rigid, because working-class students are not only more likely to be placed in substandard academic settings, but Lareau's findings suggest that working-class and poor children will be less likely to strike the posture that their schools value. In this way, we can see how divergent child-rearing and language acquisition strategies might promote the kind of disjuncture between community and school reflected in Ogbu's and Carter's discussions of oppositional culture.

However, arbitrariness of school procedures, not correspondence, is also evident in such analyses. Heath (1983) documented the rich language use and talent of children raised in homes that use authentic questions, and how changes in school practice made their school achievements improve. For every class difference one could consider the question of "Which is better?" For example, Lucas asks:

Are inauthentic questions "better" for teaching children? Most analyses say no; although inauthentic questions have their place, they are overused in U.S. education (Newmann et al. 1996). Further, they fail to match the aim of education in a globalizing, highly competitive, neoliberal, take-no-prisoners economy, and they do not match the aim of many parents to empower their children in the social, political, and economic arenas. (Lucas 2013, p. 71)

Newmann, Marks, and Gamoran highlight the mismatch, contending that:

Scientists, jurists, artists, journalists, designers, engineers, and other accomplished adults rely on complex forms of communication both to conduct their work and to express their conclusions. The language they use—verbal, symbolic, and visual—includes qualifications, nuances, elaborations, details, and analogues woven into extended expositions, narratives, explanations, justifications, and dialogue. In contrast, much of the communication demanded in school requires only brief answers: true or false, multiple choice, fill in the blank, or short sentences (e.g., "Prices increase when demand exceeds supply"). (1996, pp. 283–284)

One implication of the middle-class use of inauthentic questions in child development is that in order for middle-class children to attain their parent's occupational positions, their inauthentic-question-based childhood communication patterns must someday be undone. In contrast, many Black children engage authentic questions at an early age, meaning that they enter school ready and able to engage in complex communication forms, in a sense ahead of the game. But, after intense involvement with a school communicative environment that re-labels their creativity as deficiency, their linguistic advantage is lost.

Seen in this way, at least some notable non-correspondences are evident, a fact quite consistent with Bourdieu's perspective on cultural capital, especially the variant highlighting the social construction of skill.

Lareau (2003) does not support the "burden of acting White" hypothesis, as the findings connect child-rearing strategies to class, rather than race, and also offer no suggestion that either the children or their parents devalue education, only that they interact differently with school authority.

Lareau's work also demonstrates the importance of significant others' influence. In concerted cultivation and the accomplishment of natural growth, parents set implicit expectations for the manner in which children will structure and orient their time. Because the former is in line with the expectations of education authorities (e.g., college admissions officers), middle-class students can be expected to attain higher levels of education. Moreover, while parents' encouragement of certain styles of interaction with authority is important, the effect escalates to the extent that middle-class children are also given greater

access to authority figures at younger ages. Middle-class parents accomplish this by enrolling their children in all kinds of organized activities, like sports and music lessons. This gives middle-class children many more opportunities to build their comfort with authority figures.

4.16 Concluding Remarks

Evidence indicates that class and racial/ethnic inequality in education is ubiquitous or perhaps even universal. Analysts have proposed multiple theories to explain the documented inequalities and their intransigence. Even so, many theories suggest mechanisms that might be manipulable enough to reduce, or even eliminate, class- and racial/ethnic-linked educational inequality. Yet, prior to the challenge of constructing the political will to engage such mechanisms, analysts must intensify their efforts to assess the theories through which those potential mechanisms are identified. As analysts deepen their engagement with this task, it is likely that some theories will be found wanting. At the same time, new, more, full comprehension of the maintenance of inequality may come within reach. In this way, sociologists may contribute to closing the gap not only between classes and racial/ethnic groups in achievement and attainment but, also, to reducing the gap between humans' cognitive potential and realized cognitive achievement. Perhaps the possible gains to such a closure, and the prospect of sociologists contributing to such an enterprise, will spur the next adjudicatory steps in the research agenda of sociologists of education.

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