AERA Open
January-December 2024, Vol. 10, No. 1, pp. 1–16
DOI: 10.1177/23328584241305120
Article reuse guidelines: sagepub.com/journals-permissions
© The Author(s) 2024. https://journals.sagepub.com/home/ero

Can Adolescents Acquire Cultural Capital Through Social Capital Access and Exposure? Experimental Evidence of the Impact of Ties to College-Educated Adults

S. Michael Gaddis
NWEA
Joseph Murphy
UCLA

Scholars question whether cultural capital reproduces existing inequalities or leads to upward mobility. While families provide opportunities to increase cultural capital, schools value and reward cultural capital. Thus, adolescents need to obtain cultural capital through their families to be able to navigate the education system. However, most research does not provide causal evidence of cultural capital acquisition and lacks clarity about how disadvantaged adolescents might increase cultural capital. We hypothesize that adolescents may increase cultural capital through social capital access and exposure—their ties to and meeting frequency with other important adults knowledgeable about the education system. Using data from a randomized control trial on mentoring relationships, we find that high levels of social capital positively affect cultural capital, but only for otherwise disadvantaged adolescents with parents who have some college experience. Our findings suggest cultural capital may be a more limited engine of mobility if disadvantaged adolescents from less educated households cannot acquire or increase their cultural capital.

Keywords: *cultural capital, disparities, educational inequality, experimental research, inequality, longitudinal studies, mentoring, social capital, social class, socioeconomic status, sociology*

Introduction

Cultural capital has become one of the most studied concepts in the social sciences, spanning research on education, inequality, the family, organizations, race, and technology.[1] Cultural capital consists of assets, cultural knowledge, and linguistic competencies, all deployed with confidence and seeming naturalness that help adolescents navigate the education system (Calarco, 2018; Holland, 2019; Lareau, 2015; Richards, 2022). Teachers, administrators, and other institutional agents value and reward students who exhibit high levels of cultural capital. Scholars argue that cultural capital matters because it aids students in negotiating interactions with gatekeepers at every educational juncture: with their grade-school teachers (Calarco, 2011, 2014), in college admissions offices (Stevens, 2007), and with college professors (Jack, 2019). Thus, cultural capital plays a vital role in adolescents' and young adults' educational achievement and attainment, where they go to college, and their later socioeconomic status (Gaddis, 2015; Lee & Kramer, 2013; Noble & Davies, 2009; Nora, 2004; Rivera, 2011, 2012).

Over time, cultural capital research has splintered into multiple paths and led to disputes about interpreting and operationalizing the concept and whether cultural capital contributes to socioeconomic reproduction or mobility (see Davies & Rizk, 2018; Hu & Yin, 2021; Lareau & Weininger, 2003). We argue that the literature contains at least three other significant blind spots. First, existing research is often cross-sectional and presents point-in-time snapshots of adolescents' cultural capital. This research is unable to capture even basic changes over time that might provide insight into whether adolescents might acquire or increase their amounts of cultural capital. Second, existing research is often correlational and presents simple, noncausal examinations of adolescents' cultural capital. Thus, scholars are unable to capture even plausibly causal details about what or who influences adolescents' acquisition of cultural capital. Third, education scholars incorporate a view of cultural capital that nearly exclusively examines the nexus between families and schools. This view ignores students' potential cultural capital acquisition that might come from other adults outside these institutions. These three shortcomings significantly limit our understanding of whether cultural capital is an engine of socioeconomic mobility or reproduction.

We hypothesize that adolescents, particularly disadvantaged adolescents, may be able to gain cultural capital

Creative Commons Non Commercial CC BY-NC: This article is distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 License (https://creativecommons.org/licenses/by-nc/4.0/) which permits non-commercial use, reproduction and distribution of the work without further permission provided the original work is attributed as specified on the SAGE and Open Access pages (https://us.sagepub.com/en-us/nam/open-access-at-sage).

through social capital. Broadly conceived, social capital represents the resources—information, knowledge, and opportunities—embedded in networks and relationships (Lin, 2002, 2008; Portes, 1998; Smith, 2008). Access and repeated exposure to college-educated adults who have successfully navigated the education system may help adolescents increase their cultural capital. This form of social capital may be particularly valuable to adolescents with non-college-educated parents because it may provide adolescents with their first close ties to a college-educated adult outside of school. However, similar to research on cultural capital, research on social capital in education has rarely focused on ties between adolescents and adults outside of family or school networks (although, see Gaddis, 2012; Hofferth et al., 1998; Morgan & Sørensen, 1999).

We examine whether adolescents' access and exposure to social capital increase cultural capital and whether this relationship varies by parents' educational attainment. We investigate this topic using unique data from a randomized control trial (RCT) on mentoring relationships between adolescents and adults in the Big Brothers/Big Sisters of America program. In our dataset, program staff randomly assigned adolescents to a control group with no contact with a mentor or a treatment group that paired them in a mentoring relationship with an outside adult for 18 months. We operationalize social capital access as (1) no mentor, (2) mentor with some college education (but no degree) or less, and (3) mentor with a college degree or more. Additionally, we operationalize social capital exposure as the frequency of meetings between adolescents and their mentors. Our dataset also includes a battery of adolescent, family, and mentor characteristics recorded at baseline and 18 months later. We control for baseline cultural capital and examine the effects of social capital access and exposure on six measures of cultural capital as discussed in both quantitative and qualitative research: (1) reading habits, (2) museum attendance, (3) play attendance, (4) cultural lessons, (5) visiting cultural locations, and (6) relationships with teachers.

In our initial models of social capital access, we find that access to a mentor has positive effects on adolescents' cultural capital but only when a mentor has a college degree or greater. When we include a measure of social capital exposure (meeting frequency) in our models, we find that most of the positive effects are concentrated among adolescents with highly educated mentors who meet with adolescents frequently. Finally, when we examine differential effects by parental education, we find that all of the positive effects of social capital access and exposure on cultural capital occur among adolescents who have a parent with high educational attainment.

Our research merges multiple theoretical strands and provides strong causal evidence on the effects of social access on cultural capital and additional exploratory evidence on the effects of social capital exposure on cultural capital. The results suggest that social capital access and exposure can induce changes in cultural capital. However, among disadvantaged adolescents, the benefits are limited to those with parents who have some college experience. Thus, while this research provides some evidence that cultural capital may contribute to a system of socioeconomic mobility, more work is necessary to test the specific conditions under which this occurs.

Literature Review

Nearly Fifty Years of Cultural Capital Research

Scholars have broadly interpreted the work of Bourdieu (1984, 1986; Bourdieu & Passeron, 1977) to suggest that inequalities in capital (e.g., human, social, and cultural) lead to inequalities in academic outcomes. Cultural capital is the "informal knowledge about school, traditional humanist culture, linguistic competence and specific attitudes, or personal style" that are the attributes of the dominant class (Lamont & Lareau, 1988, p. 155). Bourdieu's theory of cultural reproduction suggests that gatekeepers can limit the social mobility of individuals who do not display cultural capital. Teachers, administrators, and other actors in educational environments value cultural characteristics that align with the dominant middle-class culture. Advantaged students convey this culture through speech, attitudes, behavior, knowledge, and other interactions. However, only adolescents from middle- and high-SES backgrounds are exposed to the necessary cultural capital through their home life, interactions with their parents, and the various activities encouraged or organized by their parents. Although cultural capital helps these adolescents navigate the education system, adolescents from low-SES backgrounds may not have the dominant cultural capital expected at school and are at a distinct disadvantage. Thus, schools reproduce inequalities based on SES because institutional agents reward displays of the dominant culture, and those rewards translate into higher levels of educational achievement and attainment.

A dividing line exists between quantitative and qualitative researchers' approaches to cultural capital. Quantitative researchers tend to operationalize cultural capital as a measure of cultural resources. The most common operationalizations include reading habits and participation in high-arts activities, such as museum visits and play attendance (Breinholt & Jæger, 2020; De Graaf et al., 2000; Gaddis, 2013).[2] Qualitative researchers consider cultural capital as parents' and children's translation of knowledge, practices, and habits into educational opportunities and success. This translation can occur through middle-class families "working the system" (Lareau, 2000), increasing children's opportunities and confidence in interactions with institutional agents (Lareau, 2011, 2015) or children's help-seeking strategies (Calarco, 2011, 2014, 2018; Streib, 2011).[3]

Can Adolescents Acquire or Increase Amounts of Cultural Capital?

While researchers generally find that cultural capital is a crucial component in educational inequality, it remains unclear whether it contributes to reproduction or mobility (Aschaffenburg & Maas, 1997; DiMaggio, 1982). Perhaps this lack of clarity is due to limited research addressing whether cultural capital can be acquired or increased (Hu & Yin, 2021). Qualitative and quantitative research on cultural capital have advantages and disadvantages in addressing this point. Qualitative research captures cultural capital as a relational concept better than quantitative research (Davies & Rizk, 2018). However, while qualitative researchers examine the interaction processes leading to the use of cultural capital, they do not measure amounts of cultural capital nor find that adolescents from lower- and working-class families can systematically obtain cultural capital. Conversely, although quantitative research can theoretically examine changes in amounts of cultural capital, most studies are correlational rather than causal and examine cross-sectional rather than longitudinal data.

A limited number of studies provide some insight into whether and how adolescents can obtain or increase amounts of cultural capital. Two such qualitative studies stand out. The first examines how cross-class cultural mentors may provide working-class families with resources and tools for interacting with educational institutional agents (Lareau & Calarco, 2012). While working-class families sometimes have opportunities to interact with middle- and upper-class parents in a consistent and sustained environment (e.g., during Little League games), these interactions yield limited benefits. A second qualitative study examines how low-SES students interact with educational institutional agents in college (Jack, 2016). This research suggests that low-SES students can gain cultural capital when exposed to upper-class peers exhibiting cultural capital at elite prep schools. This form of cultural capital benefits low-SES students by preparing them for interactions with professors and administrators in higher education.

Additionally, three quantitative studies provide insight into whether students can acquire or increase cultural capital. Using the multiwave longitudinal Panel Study of Income Dynamics (PSID), Roksa and Potter (2011) examine differences in cultural capital among parents whose class positions changed or stayed the same over their lifetimes. They find that upwardly mobile (from low- to middle-SES) parents can adopt practices of concerted cultivation and help their children gain cultural capital. Two field experiments provide strong causal evidence suggesting that adolescents can acquire and increase cultural capital. In the first, students randomly assigned to attend an art museum were more likely than students in the control group to want to acquire more cultural capital and attend the same museum again (Kisida et al., 2014). In the second, students randomly assigned to attend a theater play were more likely than students in the control group to want to acquire more cultural capital (Greene et al., 2018).

These five studies provide insight into whether adolescents can acquire or increase amounts of cultural capital but are far from definitive. While the two qualitative and two experimental studies examine potential causal mechanisms of cultural capital acquisition, the fifth study (Roksa & Potter, 2011) does not specify precisely how cultural capital acquisition might occur. Each of the other four studies examines only a specific mechanism through which adolescents might acquire or increase cultural capital. Moreover, each study examines a specific context, with two in northwest Arkansas (Greene et al., 2018; Kisida et al., 2014).

Acquiring or Increasing Cultural Capital Through Social Capital

Although not systematically investigated, the literature on cultural capital acquisition hints at a possible way for parents and adolescents to acquire or increase cultural capital. In the proper context, connections to and interactions with middle- and upper-SES adults might help adolescents acquire or increase cultural capital. These connections are a form of social capital, which scholars define as access to and use of resources available in network connections (Bourdieu, 1986; Coleman, 1988, 1994; Lin, 2002, 2008; Portes, 1998). Broad use of social capital in research across fields has led to large variation in measurement of the concept (Jackson, 2020; Kwon & Adler, 2014; Lakon et al., 2008; Van der Gaag & Snijders, 2004).[4] Research on social capital in the education literature originates from Bourdieu's (1986) and Coleman's (1988) theoretical and empirical work. The former focuses on access to institutional resources, while the latter focuses on norms (Dika & Singh, 2002).[5] Research in the employment and networks literature defines social capital as the resources embedded in networks, relationships, and social ties (Lin, 2002; Portes, 1998). We merge these important strands of social capital research and focus on two main components of social capital: access and exposure. Our inequality- and network-centered theory of social capital helps illuminate important potential mechanisms of cultural capital acquisition.

Social Capital Access

Social capital access represents both the existence of a tie to another person and the potential resources that can be extracted through that tie. Education scholars who examine social capital often measure access as connections between students and important adults. One critical example is Ricardo Stanton-Salazar's work (1997, 2001, 2011; Stanton-Salazar & Dornbusch, 1995), which focuses on social capital access as ties to institutional agents. Stanton-Salazar (1997) suggests that teachers, counselors, and anyone else who has

"the capacity and commitment to transmit directly, or negotiate the transmission of, intuitional resources and opportunities" (p. 6) can provide different forms of knowledge that help adolescents navigate and succeed in the education system. Others have built on Stanton-Salazar's conceptualizations of social capital access in educational settings (Farmer-Hinton, 2008; Hardie, 2015, 2018; Holland, 2015, 2019). Few scholars, however, have examined the role of important adults beyond those within the family and school.[6]

An adolescent's connection to an adult is just one part of social capital access. Adults bring embedded resources to relationships that are, perhaps, an even more critical aspect of social capital access (Castilla et al., 2013; Granovetter, 1973; Lin et al., 1981; Mouw, 2003). Research from the literature on labor markets underlines this point. In employment, as Pedulla and Pager (2019, p. 988) explain, "strategically placed social ties may provide job seekers with tacit, informal knowledge about the companies and jobs to which they are applying." In other words, social capital access must account for both the connection itself and the potential information and resources provided through the connection. Considering this in the context of cultural capital, the value provided by an adolescent's access to an adult is likely dependent on the adult's educational attainment. A college-educated adult is best positioned to help adolescents acquire and increase their cultural capital because they have successfully navigated the system.

Social Capital Exposure

Social capital exposure represents the time spent in a relationship that affords more opportunities to extract resources from a relationship. Coleman (1988) conceptualized social capital as the strength of a relationship between two individuals. He examined social capital in the context of relationships between adults and adolescents. To benefit from such a relationship, adolescents must have sustained exposure and spend greater amounts of time with an adult. Following this conceptualization, the literature on social capital often examines levels of social capital between parents and children (Coleman, 1987, 1988; Parcel & Dufur, 2001; Sandefur et al., 2006; Teachman et al., 1996).

Few studies, however, directly measure social capital exposure or time in a relationship, particularly with adults other than family members. Social capital exposure can positively affect adolescents' academic achievement and reduce negative behaviors (Gaddis, 2012). Multiple mechanisms may explain why social capital exposure matters, including the effort put into the relationship by both parties and the increased opportunities to model behavior and pass along knowledge. It stands to reason that social capital exposure could help adolescents acquire and increase their cultural capital. As adolescents spend more time with an adult, they have more opportunities to engage in a wider variety of activities and discussions. Social capital exposure may also provide both parties with more time to build relationship trust and broach more important and challenging conversations. However, in potentially building cultural capital, social capital exposure likely depends on social capital access, as a college-educated adult has the necessary knowledge and resources to help an adolescent.

Contribution and Research Questions

Although the literature on cultural capital is extensive, three significant gaps limit knowledge of whether cultural capital contributes to reproduction or mobility. First, most quantitative cultural capital research uses cross-sectional rather than longitudinal data. Without longitudinal data, researchers cannot examine the basic concept of whether individual stocks of cultural capital remain similar or change over time. This is crucial to adjudicating the socioeconomic mobility versus reproduction debate since we do not know whether disadvantaged adolescents can significantly increase their amounts of cultural capital over time. Second, cultural capital research primarily uses correlational data and does not provide strong causal evidence about what or who can lead to changes in individual stocks of cultural capital. Third, cultural capital research focuses mostly on interactions between families and schools without examining whether other outside adults might provide assistance. Sustained interactions with a college-educated adult from outside an adolescent's family or school may present the best opportunity for an adolescent to acquire or increase their cultural capital. In turn, if adolescents cannot acquire or increase their cultural capital, cultural capital cannot possibly result in socioeconomic mobility.

We bring together theoretical strands on social capital from literature on education, labor markets, and networks to suggest a model of cultural capital acquisition. Unlike prior work, we examine other adults who are not related to the focal adolescents and are not teachers or counselors. Additionally, we measure social capital access as both the existence of a tie to another person and that person's educational attainment. The second part of this measurement better captures the specific knowledge and resources that may be necessary to help adolescents acquire or increase their cultural capital. We also include a measure of social capital exposure to capture the opportunities to display or transfer the knowledge and resources that might increase cultural capital. Finally, we examine these processes using data from an experiment that capture multiple measures of cultural capital at two time points. These data permit us to make causal claims about social capital access, although not exposure,[7] due to random assignment. The data also permit us to measure a process of cultural capital acquisition that cannot be measured with standard correlational and cross-sectional analyses.

Our analysis is guided by three research questions:

1. Does social capital access—operationalized as random assignment to an adult mentor and that mentor's educational attainment—affect an adolescent's levels of cultural capital?
2. Does social capital exposure—operationalized as the frequency that adolescents and mentors meet—affect an adolescent's levels of cultural capital?
3. Are the effects of social capital access and exposure on cultural capital, if any, dependent on an adolescent's parents' educational attainment?

Data and Method

We examine our research questions using data on adolescents who participated in the Big Brothers/Big Sisters of America program (BBBSA). The BBBSA program matches adult volunteers with disadvantaged adolescents. Each individual agency has different guidelines about what constitutes disadvantage, but most adolescents in our sample (and in the program generally) live in low-income households (83.1%) with a single parent (89.9%) who has a high school degree or less (57.9%). Volunteer mentors, however, are of higher socioeconomic status. The vast majority of mentors have household incomes at or above the median level (64.3%) and have at least a college degree (61.2%).

Over a period of 18 months, eight BBBSA sites in the study (Columbus, OH; Houston, TX; Minneapolis, MN; Rochester, NY; Philadelphia, PA; Phoenix, AZ; San Antonio, TX; and Wichita, KS) agreed to randomly assign ALL families who came into the office to fill out intake forms to sign up for the BBBSA program. The only criteria for eligibility were: (a) the adolescent had to be physically and mentally able to complete a telephone interview, (b) the adolescent had to be entering the BBBSA program voluntarily and not through a contractual obligation (e.g., child protective services, other youth service agencies), and (c) both the parent and the adolescent had to provide consent for the research study. In total, 156 adolescents across the eight sites did not meet these criteria (12.1% of the total intake during this time in these sites).

Adolescents were randomly assigned to either control or treatment conditions using an experimental design. Staff placed adolescents in the control condition on a waitlist and did not assign them to an adult mentor for the duration of the experiment. Staff assigned adolescents in the treatment condition to a Big Brother or Big Sister, who served as their adult mentor. We classify assignment to a mentor and that mentor's educational attainment as social capital access and the meeting frequency between adolescents and mentors as social capital exposure. Baseline and follow-up (18 months later) surveys recorded information on cultural capital activities and other important adolescent and family characteristics.

We believe the BBBSA experiment represents an excellent opportunity to examine whether social capital access and exposure can help adolescents acquire or increase levels of cultural capital. As stated previously, the research design and data permit us to examine the causal effects of social capital access on changes in cultural capital. Moreover, the families interested in the BBBSA program are highly motivated to help their children succeed with the assistance of other adults. In this study, parents provided various reasons why they wanted their child to interact with a Big Brother or Big Sister. The four most common reasons were: (1) providing a role model for their child (43.7%), (2) improving their child's self-esteem (39.4%), (3) social and cultural enrichment of their child (35.9%), and (4) improving their child's motivation and attitude toward school (29.1%). These reasons implicitly suggest parents hope other adults may help their children acquire cultural capital and improve their educational achievement and attainment. The following sections provide details about the sample, experimental design, variables, and analytic strategy.

Sample and Experimental Design

BBBSA program staff worked with public/private ventures to implement the RCT experimental design used in this study. Researchers took a random sample of adolescents from a sampling frame of existing BBBSA applicants waiting for an assignment to a mentor. Thus, selection into the program and the research study was voluntary. Staff members selected 1,138 adolescents for randomization into treatment and control groups. Of those randomized, 1,107 adolescents (97.3%) completed a baseline interview before treatment began and 959 (84.3%) completed an additional follow-up interview 18 months later. Of those 959, staff randomly assigned 472 adolescents to a control group and 487 to a treatment group. The retention differences between treatment (487 out of 571 assigned, or 85.3%) and control groups (472 out of 567, or 83.2%) are not statistically significant.

Adolescents in the treatment group were matched with a mentor of the same gender, but the match was randomized on other characteristics. Most importantly, adolescents were randomized with respect to the mentor's educational attainment. Adolescents in the control group were placed back on the waiting list. They received no contact with a mentor for the entire 18-month study period. All data collection took place in eight cities—Columbus, Ohio; Houston, Texas; Minneapolis, Minnesota; Philadelphia, Pennsylvania; Phoenix, Arizona; Rochester, New York; San Antonio, Texas; and Wichita, Kansas.

Table 1 shows the descriptive statistics for our sample. The mean age of adolescents at the beginning of data collection in our sample is 12.3, and the range is 9.4 to 16.7. The sample skews male (62.5%) and has nearly as many Black adolescents (40.8%) as White adolescents (42.3%). It is

important to note the nature of disadvantage in this sample. Although the criteria differ by chapter, the BBBSA program attempts to help the most disadvantaged children and adolescents. Nearly 83% of the sample live in households making less than $25,000 per year, 58% live with parents who have a high school degree or less, and most live in a single-parent or non-parental household. This sample is skewed toward disadvantaged adolescents from low-SES families and is not nationally representative. Importantly, however, these results come from a randomized control trial, and there are no statistically significant differences in any of our control or pre-treatment variables between the three categories of social capital access (more later). Although the sample is not generalizable to all adolescents in the United States, the experimental nature of these data allows us to examine the effects of social capital on cultural capital for disadvantaged adolescents in a causal framework absent traditional problems of selection bias (Mouw, 2006).

Measures of Social Capital Access and Exposure

We operationalized our first independent variable of interest—social capital access—as access to a mentor (treatment status) and the resources embedded in that relationship (mentor's educational attainment). This operationalization closely aligns with broader definitions of social capital access as potential information, knowledge, other resources, and opportunities embedded within a network connection (Lin, 2002, 2008; Portes, 1998; Smith, 2008). We trichotomized social capital access as (1) no mentor, (2) mentor with some college education (but no degree) or less, and (3) mentor with a college degree or more. Importantly, each adolescent has an equal chance of being randomly assigned to one of these three categories.

We operationalized our second independent variable of interest—social capital exposure—as the frequency that mentors and adolescents meet. Meeting frequency captures the opportunity for pairs to engage in a wider variety of activities and discussions. We dichotomized social capital exposure as (1) mentor and adolescent meet at least once per week and (2) mentor and adolescent meet less than once per week. Although adolescents are randomly assigned to social capital access, they are not randomly assigned to social capital exposure. Program staff encouraged mentors to meet with their adolescents at least once a week, but not all did. Thus, our ability to make causal claims about social capital exposure is limited because exposure may be biased due to selection. Nonetheless, meeting frequency is not significantly different between mentors with less than a college degree and mentors with a college degree or greater (see Table 1).

Measures of Cultural Capital

We examine six operationalizations of cultural capital as our dependent variables of interest: weekly hours spent reading, the number of times an adolescent has visited a museum in the past 12 months, the number of times an adolescent has attended a play in the past 12 months, the average number of cultural lessons outside of school (i.e., music, art, dance, and language), the frequency that adolescents visited cultural locations in the past 18 months (e.g., library, museum, or a play), and whether adolescents stated that they learned to get along better with teachers in the past 18 months. Each of the first four cultural capital measures was recorded before treatment assignment and eighteen months later, while the last two measures were only recorded during the follow-up.

Our first five measures of cultural capital best align with traditional quantitative operationalizations of cultural capital in the literature, although debate continues as to whether other measures could be more useful (see discussions in Gaddis, 2013; Jæger, 2022; Sablan & Tierney, 2014; Tan, 2017). Scholars have used these same—or very similar—measures in numerous quantitative studies of cultural capital over the past four decades (Aschaffenburg & Maas, 1997; Dumais & Ward, 2010; Gaddis, 2013; Jæger, 2011; Jæger & Møllegaard, 2017). However, our sixth measure is closely related to the operationalization of cultural capital in recent qualitative work: the concept of help-seeking behavior (Calarco, 2011, 2014; Lareau, 2015; Richards, 2022). Scholars suggest this is a form of cultural capital because adolescents learn that these interactions with teachers form the scaffolding of navigating the education system and lead to clear benefits within the system. Although our variable does not capture help-seeking behavior directly, learning to get along with teachers is a necessary condition for help-seeking behavior and for navigating the education system more broadly. Our multifaceted approach to measuring cultural capital should provide a more robust examination of the effects of social capital on cultural capital.

Other Variables

The dataset contains many variables on adolescents, including the following that we use as controls: age, gender, race/ethnicity, learning disability status, and GPA at baseline. Additionally, we use parents' highest educational attainment as either a control or interact with social capital and exposure variables. We examine models with the latter specification to test whether social capital access and exposure affect changes in cultural capital for adolescents whose parents have a high school education or less, some college or more, or both.

Analytic Strategy

We analyze longitudinal models that include lagged dependent variables to adjust for omitted variable bias. In our models, we also include the city of the BBBSA chapter and the individual-level controls listed above. We estimate a multilevel model with a random intercept for BBBSA home

TABLE 1
Descriptive Statistics

	Mean/Proportion			
		Social Capital Access		
	Total	No Mentor	Mentor w/ <Col. Deg.	Mentor w/ ≥Col. Deg.
Controls				
Age	12.25	12.33	12.04	12.17
Male	0.625	0.650	0.534	0.617
White	0.423	0.398	0.486	0.448
Black	0.408	0.417	0.370	0.409
Hispanic	0.103	0.113	0.082	0.091
Other race/ethnicity	0.066	0.072	0.061	0.052
Parent ≤ high school	0.582	0.587	0.589	0.565
Parent ≥ some college	0.418	0.413	0.411	0.435
Learning disability	0.155	0.161	0.151	0.143
GPA (pretreatment)	2.77	2.77	2.67	2.83
Cultural Capital (pretreatment)				
Time spent reading	2.12	2.07	2.10	2.24
Museum visits	1.03	0.97	0.91	1.25
Play attendance	0.98	0.99	0.78	1.08
Cultural lessons	0.37	0.35	0.42	0.38
Social Capital Exposure				
Meeting frequency < once a week			0.500	0.558
Meeting frequency ≥ once a week			0.500	0.442

Note. Only 4.5% of adolescents report social capital exposure as frequently as twice per week, and 5.3% of adolescents report social capital exposure as infrequently as once per month.

chapter due to the nested nature of the data (individuals *i* nested within BBBSA chapters *j*). Presented in generalized form, the longitudinal model is:

$$\boldsymbol{Y}_{ij\,post} = \zeta_j + \mu_i + \beta_1 \boldsymbol{SCA}_{ij} + \beta_2 \boldsymbol{X}_{ij} + \beta_3 \boldsymbol{Y}_{ij\,pre} + \varepsilon_{ij} \quad (1)$$

where ζ is a level 2 (location) intercept, μ is a level 1 (individual) intercept, ***SCA*** is the three-category social capital access variable, ***X*** is a vector of control variables, $\boldsymbol{Y}_{pre}$ is the lagged dependent variable, and ε is the error term. We estimate separate models for each of the six cultural capital dependent variables.

Additionally, we analyze models that include (a) social capital access and exposure and (b) social capital access, exposure, and parents' highest educational attainment. To aid interpretability, we create new categorical variables that account for all possible combinations rather than create multiple interaction models. These models are essentially the same as equation 1, but with a different categorical variable substituted for ***SCA***.

Results

Table 2 presents the effects of social capital access on each cultural capital variable. In model 1, we examine the effect of social capital access on reading habits post-treatment. The results indicate that having a mentor with less than a college degree has no significant effect on time spent reading. Having a mentor with a college degree or greater has a significant and positive effect ($\beta = 0.542$; $p < 0.05$) on time spent reading. In model 2, the results indicate that having a mentor with a college degree or greater has a significant and positive effect ($\beta = 0.143$; $p = 0.07$) on museum visits. In model 3, we find no significant effects of social capital access on play attendance. In model 4, we find that having a mentor with a college degree or greater has a significant and positive effect ($\beta = 0.275$; $p < 0.05$) on the number of cultural lessons. In model 5, we find that having a mentor with a college degree or greater has a significant and positive effect ($\beta = 0.398$; $p \leq 0.05$) on cultural location visits. In model 6, we find no significant effects of social capital access on getting along better with teachers.

The results from Table 2 provide some moderate evidence that adolescents who have access to a highly educated adult other than their parents or teachers can increase their cultural capital. However, this relationship may vary by social capital exposure. Table 3 presents the effects of social capital access and exposure on each cultural capital variable. In model 1, we find that having a mentor with a college

TABLE 2
Social Capital Access Models Predicting Cultural Capital

	(1)	(2)	(3)	(4)	(5)	(6)
	Time Spent Reading	Museum Visits	Play Attendance	Cultural Lessons	Cultural Location Visits	Get along Better w/ Teachers
Controls						
Male	−0.525*	−0.017	−0.183*	−0.317**	−0.522**	0.148
	(0.171)	(0.077)	(0.077)	(0.112)	(0.184)	(0.157)
Race: Black (ref: White)	−0.541*	−0.321***	0.065	0.306**	0.451*	0.374^{+}
	(0.196)	(0.081)	(0.084)	(0.116)	(0.190)	(0.220)
Race: Hispanic	−0.730	0.155	0.395**	−0.089	0.323	0.133
	(0.427)	(0.120)	(0.126)	(0.208)	(0.324)	(0.228)
Race: Other	−0.206	−0.080	0.146	−0.924**	0.621^{+}	0.370
	(0.353)	(0.141)	(0.144)	(0.345)	(0.368)	(0.404)
Parent ≥ some college	0.545**	0.197**	0.173*	−0.076	0.140	0.043
	(0.137)	(0.072)	(0.075)	(0.109)	(0.177)	(0.295)
GPA (pretreatment)	0.043	0.093*	0.104*	0.141*	0.150	0.043
	(0.103)	(0.046)	(0.048)	(0.071)	(0.106)	(0.143)
Cultural capital (y-variable pretreatment)	0.169*	0.139***	0.094***	0.213***		
	(0.055)	(0.023)	(0.021)	(0.031)		
Social Capital Access (ref: No mentor)						
Mentor w/ <col. deg.	−0.021	0.001	0.050	−0.062	0.187	−0.148
	(0.271)	(0.104)	(0.104)	(0.157)	(0.228)	(0.149)
Mentor w/ ≥col. deg.	0.542*	0.143^{+}	−0.093	0.275*	0.398*	0.195
	(0.217)	(0.080)	(0.090)	(0.118)	(0.192)	(0.157)
Constant	0.897	0.757^{+}	−0.095	−1.289*	0.488	−0.264
	(0.898)	(0.412)	(0.417)	(0.601)	(0.957)	(0.459)
Observations	959	959	959	959	959	959

Note. Each model also controls for age, learning disability, and location (city). Model 1: linear regression. Models 2, 3, 4, & 5: Poisson regression. Model 6: logistic regression. Standard errors in parentheses.
$^{+}p < 0.10$, $*p < 0.05$, $**p < 0.01$, $***p < 0.001$.

degree or greater has a similar effect, regardless of exposure (meets < once a week: $\beta = 0.574$; $p = 0.08$; meets ≥ once a week: $\beta = 0.506$; $p < 0.05$). In model 4, we find that greater social capital exposure matters for the number of cultural lessons, regardless of mentor's educational attainment (mentor w/ <college degree: $\beta = 0.396$; $p < 0.05$; mentor w/ ≥college degree: $\beta = 0.445$; $p < 0.01$). Additionally, mentors with less than a college degree who meet less than once a week have a negative effect ($\beta = -0.656$; $p < 0.05$) on the number of cultural lessons. In model 5, we find that having a mentor with a college degree or greater has a significant and positive effect ($\beta = 0.851$; $p \leq 0.01$) on cultural location visits only for those with high levels of meeting frequency. Finally, in model 6, we find that having a mentor with a college degree or greater has a significant and positive effect ($\beta = 0.254$; $p \leq 0.01$) on getting along better with teachers only for those with high levels of meeting frequency. Additionally, mentors with less than a college degree who meet less than once a week have a negative effect ($\beta = -0.367$; $p = 0.08$) on getting along better with teachers. These results clarify whether social capital access and exposure must go hand-in-hand to generate positive effects on cultural capital. Of the six significant positive effects, four were due to both high levels of access and high levels of exposure.

Table 4 presents the effects of social capital access and exposure by parents' educational attainment on each cultural capital variable. This table presents only the eight categories of this combined variable (with "no mentor" as the reference category) and suppresses all other controls for brevity and readability. The models show numerous positive and negative effects of this combined variable on cultural capital. Thus, in Figure 1, we display only statistically significant effects ($p < 0.05$) to visually depict these patterns across categories.

We find only negative effects of social capital access and exposure on cultural capital for adolescents with a parent with low educational attainment. However, we find mostly positive effects of social capital access and exposure on cultural capital for adolescents with a parent with high educational attainment. Four of the seven (57.1%) positive and statistically significant effects occur in one scenario: high levels of social capital access and high levels of social capital

TABLE 3
Social Capital Access and Exposure Models Predicting Cultural Capital

	(1)	(2)	(3)	(4)	(5)	(6)
	Time Spent Reading	Museum Visits	Play Attendance	Cultural Lessons	Cultural Location Visits	Get along Better w/ Teachers
Controls						
Male	−0.517*	−0.017	−0.182*	−0.328**	−0.522**	0.139
	(0.164)	(0.077)	(0.077)	(0.111)	(0.185)	(0.153)
Race: Black	−0.554*	−0.321***	0.059	0.342**	0.487*	0.392^{+}
(ref: White)	(0.188)	(0.081)	(0.084)	(0.116)	(0.192)	(0.220)
Race: Hispanic	−0.748	0.155	0.386**	−0.042	0.370	0.152
	(0.414)	(0.120)	(0.127)	(0.209)	(0.326)	(0.217)
Race: Other	−0.243	−0.084	0.135	−0.858*	0.639^{+}	0.405
	(0.337)	(0.141)	(0.146)	(0.345)	(0.373)	(0.400)
Parent ≥ some college	0.545**	0.198**	0.172*	−0.068	0.144	0.046
	(0.131)	(0.072)	(0.075)	(0.109)	(0.178)	(0.295)
GPA (pretreatment)	0.045	0.094*	0.105*	0.140*	0.159	0.039
	(0.106)	(0.046)	(0.048)	(0.071)	(0.107)	(0.140)
Cultural capital (y-variable pretreatment)	0.170*	0.139***	0.094***	0.211***		
	(0.054)	(0.023)	(0.021)	(0.031)		
Social Capital Access and Exposure (ref: No mentor)						
Mentor w/ <col. deg.	0.320	0.026	0.153	−0.656*	0.045	−0.367^{+}
Meets < once a week	(0.313)	(0.140)	(0.130)	(0.262)	(0.287)	(0.209)
Mentor w/ <col. deg.	−0.416	−0.025	−0.082	0.396*	0.361	0.117
Meets ≥ once a week	(0.291)	(0.141)	(0.152)	(0.186)	(0.303)	(0.384)
Mentor w/ ≥col. deg.	0.574^{+}	0.129	−0.063	0.134	0.047	0.146
Meets < once a week	(0.286)	(0.104)	(0.114)	(0.151)	(0.237)	(0.163)
Mentor w/ ≥col. deg.	0.506*	0.160	−0.128	0.445**	0.851**	0.254**
Meets ≥ once a week	(0.198)	(0.110)	(0.129)	(0.157)	(0.258)	(0.093)
Constant	0.886	0.762^{+}	−0.093	−1.281*	0.548	−0.278
	(0.856)	(0.413)	(0.417)	(0.602)	(0.963)	(0.463)
Observations	959	959	959	959	959	959

Note. Each model also controls for age, learning disability, and location (city). Model 1: linear regression. Models 2, 3, 4, & 5: Poisson regression. Model 6: logistic regression. Standard errors in parentheses.
$^{+}p < 0.10$, $*p < 0.05$, $**p < 0.01$, $***p < 0.001$.

exposure. Additionally, six of the seven (85.7%) positive and statistically significant effects occur when levels of social capital exposure are high. In the case of two cultural capital variables (museum visits and getting along better with teachers), the effects are not dependent on the mentor's education level. In other words, having a mentor who meets frequency matters, but the effects are similar between mentors with less than a college degree and mentors with a college degree or greater. Overall, these results suggest two important points. First, the positive effects of social capital access and exposure only apply to adolescents with a parent with high educational attainment. Second, both social capital access and exposure are important. However, a mentor's educational attainment appears to be less important than how often adolescents meet with mentors.

Discussion

Across a vast literature in education, scholars have examined the influence of cultural capital on educational achievement and attainment and debated whether cultural capital contributes to socioeconomic reproduction or mobility. The existing literature has three important limitations that muddle our understanding of these processes. First, research often focuses only on cross-sectional rather than longitudinal analyses, and thus, it is unclear whether disadvantaged adolescents can increase their amounts of cultural capital. Second, quantitative studies also focus on correlations rather than causal examinations and cannot confirm what or who might help adolescents increase their stores of cultural capital. Third, most research examines cultural capital only as a

TABLE 4
Social Capital Access, Exposure, and Parental Education Models Predicting Cultural Capital

	(1)	(2)	(3)	(4)	(5)	(6)
	Time Spent Reading	Museum Visits	Play Attendance	Cultural Lessons	Cultural Location Visits	Get along Better w/ Teachers
Mentor w/ <col. deg.	0.516	0.104	0.128	−0.165*	−0.001	−0.101
& Parent < some college	(0.412)	(0.155)	(0.147)	(0.067)	(0.073)	(0.120)
& Meets < once a week						
Mentor w/ <col. deg.	−0.757^{+}	−0.340**	−0.060	0.187	0.066	−0.074
& Parent < some college	(0.375)	(0.118)	(0.142)	(0.123)	(0.085)	(0.105)
& Meets ≥ once a week						
Mentor w/ <col. deg	−0.014	−0.137	0.131	−0.198*	0.023	−0.071
& Parent ≥ some college	(0.356)	(0.171)	(0.189)	(0.080)	(0.090)	(0.132)
& Meets < once a week						
Mentor w/ <col. deg	0.018	0.397*	−0.081	0.180	0.101	0.173*
& Parent ≥ some college	(0.495)	(0.172)	(0.173)	(0.151)	(0.098)	(0.085)
& Meets ≥ once a week						
Mentor w/ ≥col. deg.	0.292	0.030	−0.066	−0.047	−0.022	0.084
& Parent < some college	(0.481)	(0.119)	(0.109)	(0.069)	(0.059)	(0.076)
& Meets < once a week						
Mentor w/ ≥col. deg.	0.394	−0.108	−0.309**	0.095	0.100	−0.066
& Parent < some college	(0.361)	(0.120)	(0.101)	(0.098)	(0.075)	(0.059)
& Meets ≥ once a week						
Mentor w/ ≥col. deg	0.998**	0.224	−0.018	0.180^{+}	0.054	−0.035
& Parent ≥ some college	(0.189)	(0.143)	(0.128)	(0.101)	(0.070)	(0.086)
& Meets < once a week						
Mentor w/ ≥col. deg	0.671	0.458**	0.190	0.358*	0.309**	0.210**
& Parent ≥ some college	(0.395)	(0.172)	(0.159)	(0.141)	(0.078)	(0.073)
& Meets ≥ once a week						

Note. Each model also controls for gender, race, GPA (pretreatment), cultural capital (y-variable pretreatment), age, learning disability, and location (city). Model 1: linear regression. Models 2, 3, 4, & 5: Poisson regression. Model 6: logistic regression. Standard errors in parentheses.
$^{+}p < 0.10$, $*p < 0.05$, $**p < 0.01$.

process that occurs between families and schools. In this research, we addressed those gaps by merging theories of social capital from the literature on education, employment, and networks. We created a framework that suggests adolescents might form relationships with unrelated adults who are not teachers or school counselors to acquire or increase their cultural capital. Furthermore, we proffered that relationships with college-educated adults (social capital access) who engage in frequent interaction with adolescents (social capital exposure) might most effectively increase adolescents' cultural capital.

We found that most of the positive effects of social capital on cultural capital occurred among adolescents whose mentors were college-educated and when adolescents and mentors met frequently. Furthermore, we found that these effects only held for otherwise disadvantaged adolescents whose parents had some college experience. These findings have important implications for research on education, inequality, and cultural capital more broadly. We believe this work represents some of the strongest evidence to date that causally shows that adolescents can acquire and increase their cultural capital over time. Moreover, we find additional causal evidence that shows the primary mechanism—i.e., social capital access—that facilitates cultural capital acquisition.

Our findings highlight a wrinkle in the socioeconomic mobility versus reproduction debate. While we do find that disadvantaged adolescents can increase their levels of cultural capital, we also find that these effects are limited to disadvantaged adolescents from more educated households. It seems likely that the key to this finding is specifically parental education rather than other SES measures more broadly. We chose to examine these differences by parental education because that operationalization aligns best with theory. In other words, parents with at least some college experience are more likely to recognize the value of cultural capital for their children's current and future education.

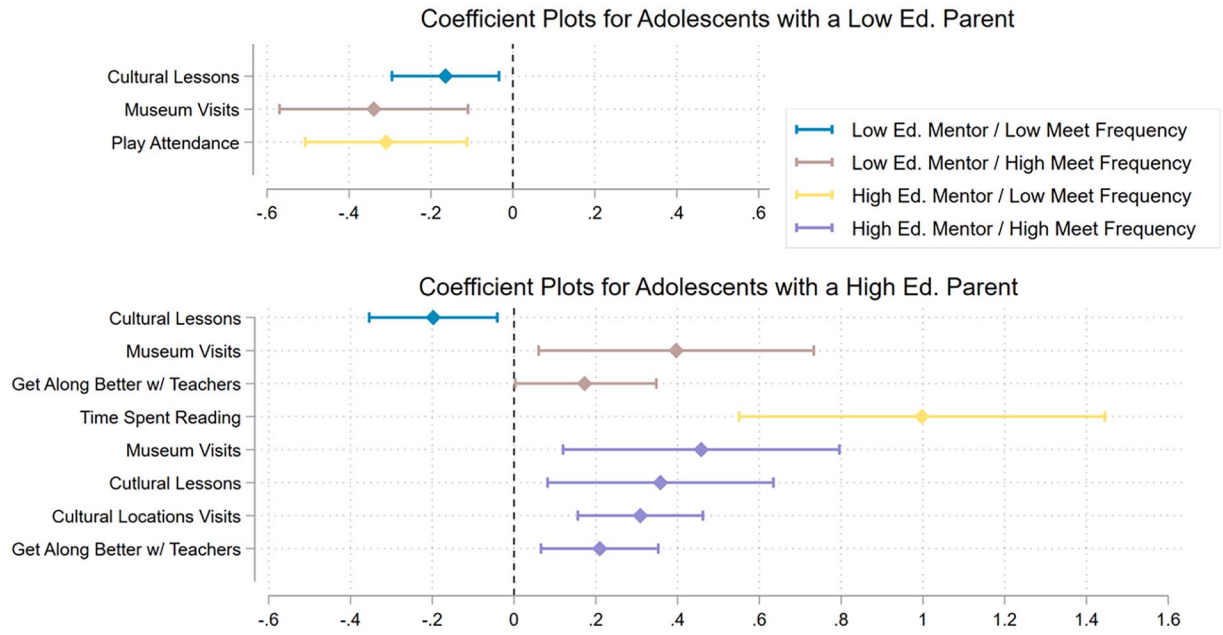

FIGURE 1. *Statistically significant coefficient plots from social capital access, exposure, and parental education models predicting cultural capital.*

Note. This figure shows only the statistically significant ($p < 0.05$) coefficients from six regression models (one for each dependent variable). Each model includes all controls shown in Table 4 and a categorical variable with nine possible values—(0) reference: no mentor, (1) parent < some college / mentor < college degree / meet < once a week, (2) parent < some college / mentor < college degree / meet ≥ once a week, (3) parent < some college / mentor ≥ college degree / meet < once a week, (4) parent < some college / mentor ≥ college degree / meet ≥ once a week, (5) parent ≥ some college / mentor < college degree / meet < once a week, (6) parent ≥ some college / mentor < college degree / meet ≥ once a week, (7) parent ≥ some college / mentor ≥ college degree / meet < once a week, (8) parent ≥ some college / mentor ≥ college degree / meet ≥ once a week.

Additionally, we could not easily test differences by household income because an overwhelming majority of our sample was low-income. These findings suggest that cultural capital may be an engine of social mobility, albeit a somewhat limited one. Perhaps some disadvantaged adolescents can acquire or increase their cultural capital, but not all of them. Thus, while this research provides some evidence that cultural capital may contribute to a system of social mobility, more work is necessary to test the specific conditions under which this occurs.

Still, it is a bit of a puzzle why these forms of social capital only led to positive effects on cultural capital for disadvantaged adolescents whose parents had at least some college experience. Mentors with a college degree may focus more on academic activities and discussions during their time with adolescents. They may specifically use their time to engage with adolescents in activities that increase cultural capital (e.g., attending museums and visiting cultural locations). Alternatively, they may use their knowledge and clout with parents to convince them to engage in similar activities with their children and provide information on the importance of these activities. However, it is unclear why mentors with college degrees would not be able to do the same for adolescents whose parents did not attend college. Perhaps these positive effects on cultural capital only arise when parents and mentors share similar beliefs about what adolescents need from the relationship. Moreover, parents of the most disadvantaged adolescents may not be able to commit the time, transportation, and financial resources that cultural capital activities require, even if an outside adult encourages them. Future work should investigate this part of the social capital to cultural capital link in more detail.

Our analysis used data from a randomized control trial conducted within the BBBSA mentoring program. These data have some limitations (i.e., moderate sample size and relative disadvantage in the sample). Still, we believe the experimental nature of the data collection provides a unique opportunity that counterbalances these limitations. Although parents select into the BBBSA program, random assignment to treatment or control conditions and random assignment to specific mentors provide strong causal evidence of the effects of social capital access on cultural capital. Moreover, the longitudinal research design provided us with an opportunity to measure changes in cultural capital directly. This form of cultural capital analysis is scarce, despite thousands of articles on the topic. Finally, the motivation of parents seeking out this program should have essentially stacked the deck in favor of finding at least some small positive effects of cultural capital suggesting a socioeconomic mobility process. Still, we found no such evidence. Unfortunately, the value of this type of social capital access

and exposure in increasing cultural capital is limited to more advantaged families.

Additionally, we urge caution in interpreting our results regarding social capital access versus exposure. While BBBSA staff randomly assigned adolescents to mentors (social capital access), the frequency with which pairs met (social capital exposure) was not randomly assigned. Thus, readers should interpret our results for social capital exposure as exploratory rather than causal. Nonetheless, these mixed interpretations provide additional opportunities for program implantations and evaluations designed to match adolescents with adults. Researchers should be alert to opportunities for random assignment of social capital exposure (e.g., some adolescents are assigned to meet with adults frequently and others infrequently), which may help adjudicate this issue. Moreover, staff involved in programs that match adolescents and adults might encourage or mandate more frequent exposure to potentially increase the odds of program success.

We believe that five of our cultural capital measures are well-aligned with prior quantitative work, and our sixth measure (i.e., "get along better with teachers") is closer to what qualitative work measures. Additionally, the first five measures are activities that mentors can directly participate in with adolescents, but the sixth measure requires passing along knowledge that the adolescent must apply herself. Some researchers have questioned the appropriateness of these traditional quantitative measures (Davies & Rizk, 2018). Research, however, finds that these measures predict educational achievement and attainment, likely because they help spark intellectual curiosity, knowledge acquisition, and a greater engagement with education. Nonetheless, our findings are still limited to six self-reported quantitative measures. We believe there would be extensive value in qualitative researchers following up on our research and examining whether changes in cultural capital in similar scenarios translate into greater educational opportunities and success.

Our work also suggests that future research should be aware of a slight but essential distinction among three interrelated concepts. Scholars have not clearly defined conceptual boundaries between adolescents' help-seeking behavior, teachers and counselors as sources of social capital, and non-educational actors as sources of social capital. This distinction is crucial because help-seeking behavior can be seen as cultural capital but may also be translated into social capital through interactions with teachers and/or counselors. Moreover, different sources of social capital (i.e., teachers and counselors versus other nonschool-affiliated adults) may provide further value to adolescents due to the gatekeeper role. Future research should examine this possibility.

Additional broad questions remain that we were unable to address in our research. First, as discussed previously, what specific mechanisms lead adolescents to increase cultural capital through social capital access and exposure? Second, are there other ways to attain or increase cultural capital, not just via different forms of social capital but more broadly? Third, evidence suggests that race and ethnicity are often paramount in understanding the value of cultural capital, so how do race and ethnicity shape the process of cultural capital acquisition (Richards, 2020)? Fourth, given that other research has examined similar processes of social capital within schools (Stanton-Salazar, 1997, 2001, 2011) and randomized control trials of cultural-based education programs on academic outcomes (Bowen & Kisida, 2023), we suggest that future work could also causally examine whether social capital access and exposure *within school settings* might lead to cultural capital acquisition. These questions will provide salient details about cultural capital acquisition that may further clarify the social mobility versus reproduction debate.

Our findings are theoretically and empirically interesting but discouraging because they suggest social capital access, and exposure may not be a route for disadvantaged adolescents to acquire or increase cultural capital. These results give credence to the thesis that cultural capital may only work as an engine of social reproduction if disadvantaged students cannot easily or systematically acquire or increase cultural capital. If so, ideas and policies to reduce educational inequality may need to focus more on changing the attitudes and behaviors of institutional gatekeepers rather than disadvantaged families.

Acknowledgments

Thanks to Megan Holland, Karly Ford, and Bill Carbonaro for their feedback on this paper.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

S. Michael Gaddis https://orcid.org/0000-0002-3467-878X

Notes

1. We conducted a Google Scholar search for research using the term "cultural capital" in the title and found that scholars have published nearly 2,400 articles and books on this topic in the past five years.

2. Numerous additional operationalizations appear in the literature, including beaux-arts possessions (Aschaffenburg & Maas, 1997; DiMaggio, 1982; Jæger, 2009), cultural classes or lessons (Dumais, 2008; Dumais & Ward, 2010; Wildhagen, 2009), cultural

discussions and knowledge (Dimaggio & Mohr, 1996; Jæger, 2009; Tramonte & Willms, 2010), extracurricular activities (Covay & Carbonaro, 2010; Jæger, 2011), and teacher perceptions of habits and skills (Farkas, 2017; Farkas et al., 1990; Kozlowski, 2015). Some scholars have expanded quantitative measures to better capture concepts from the qualitative literature (Dumais et al., 2012; Dumais & Ward, 2010; Matsuoka, 2019).

3. The resulting social class inequalities from this form of cultural capital continue into higher education, leading to fewer strategies for first-generation students to draw upon while navigating college (Armstrong & Hamilton, 2013; Jack, 2016; Stuber, 2011; Yee, 2016). Without sufficient cultural capital, these students face a form of "culture shock," which increases stress and sense of isolation and places them at higher risk of dropping and stopping out (Aries, 2008; Jack, 2014; Lehmann, 2014; Stephens et al., 2012; Zarifa et al., 2018).

4. This literature examines social capital at micro- (i.e., individual), meso- (i.e., communities and organizations), and macro-levels (i.e., societies). In this article, we focus on social capital solely at the individual level.

5. Scholars have operationalized social capital in the education literature in a variety of ways, including intergenerational closure (Carbonaro, 1998; Morgan & Sørensen, 1999), parents' relationships with other adults (Horvat et al., 2003), parents' involvement at school (McNeal, 1999; Ream & Palardy, 2008), adolescents' extracurricular activities (Broh, 2002), or resources through adolescents' friends (Cherng et al., 2013).

6. Although, see work on natural or informal mentors (DuBois & Silverthorn, 2005; Eby et al., 2008; Erickson et al., 2009).

7. Although adolescents are randomly assigned to social capital access, they are not randomly assigned to social capital exposure. Thus, our ability to make causal claims about social capital exposure is limited because exposure may be biased due to selection.

References

Aries, E. (2008). *Race and class matters at an elite college*. Temple University Press.

Armstrong, E. A., & Hamilton, L. T. (2013). *Paying for the party: How college maintains inequality*. Harvard University Press.

Aschaffenburg, K., & Maas, I. (1997). Cultural and educational careers: The dynamics of social reproduction. *American Sociological Review*, *62*(4), 573–587. https://doi.org/10.2307/2657427

Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste*. Harvard University Press.

Bourdieu, P. (1986). The forms of capital. In H. Lauder, P. Brown, J.-A. Dillabough, & A. H. Halsey (Eds.), *Education, globalization, and social change* (pp. 105–115). Oxford University Press.

Bourdieu, P., & Passeron, J.-C. (1977). *Reproduction in education, society, and culture*. Sage Publications, Inc.

Bowen, D. H., & Kisida, B. (2023). Investigating the causal effects of arts education. *Journal of Policy Analysis and Management*, *42*(3), 624–647. https://doi.org/10.1002/pam.22449

Breinholt, A., & Jæger, M. M. (2020). How does cultural capital affect educational performance: Signals or skills? *The British Journal of Sociology*, *71*(1), 28–46. https://doi.org/10.1111/1468-4446.12711

Broh, B. A. (2002). Linking extracurricular programming to academic achievement: Who benefits and why? *Sociology of Education*, *75*(1), 69–95. https://doi.org/10.2307/3090254

Calarco, J. M. (2011). "I need help!" Social class and children's help-seeking in elementary school. *American Sociological Review*, *76*(6), 862–882. https://doi.org/10.1177/0003122411427177

Calarco, J. M. (2014). Coached for the classroom: Parents' cultural transmission and children's reproduction of educational inequalities. *American Sociological Review*, *79*(5), 1015–1037. https://doi.org/10.1177/0003122414546931

Calarco, J. M. (2018). *Negotiating opportunities: How the middle class secures advantages in school*. Oxford University Press.

Carbonaro, W. J. (1998). A little help from my friend's parents: Intergenerational closure and educational outcomes. *Sociology of Education*, *71*(4), 295–313. https://doi.org/10.2307/2673172

Castilla, E. J., Lan, G. J., & Rissing, B. A. (2013). Social networks and employment: Outcomes (part 2). *Sociology Compass*, *7*(12), 1013–1026. https://doi.org/10.1111/soc4.12095

Cherng, H.-Y. S., Calarco, J. M., & Kao, G. (2013). Along for the ride best friends' resources and adolescents' college completion. *American Educational Research Journal*, *50*(1), 76–106. https://doi.org/10.3102/0002831212466689

Coleman, J. S. (1987). Families and schools. *Educational Researcher*, *16*(6), 32–38. https://doi.org/10.3102/0013189X016006032

Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, *94*, S95–S120. https://doi.org/10.1086/228943

Coleman, J. S. (1994). *Foundations of social theory*. Harvard University Press.

Covay, E., & Carbonaro, W. (2010). After the bell: Participation in extracurricular activities, classroom behavior, and academic achievement. *Sociology of Education*, *83*(1), 20–45. https://doi.org/10.1177/0038040709356565

Davies, S., & Rizk, J. (2018). The three generations of cultural capital research: A narrative review. *Review of Educational Research*, *88*(3), 331–365. https://doi.org/10.3102/0034654317748423

De Graaf, N. D., De Graaf, P. M., & Kraaykamp, G. (2000). Parental cultural capital and educational attainment in the Netherlands: A refinement of the cultural capital perspective. *Sociology of Education*, *73*(2), 92–111. https://doi.org/10.2307/2673239

Dika, S. L., & Singh, K. (2002). Applications of social capital in educational literature: A critical synthesis. *Review of Educational Research*, *72*(1), 31–60. https://doi.org/10.3102/00346543072001031

DiMaggio, P. (1982). Cultural capital and school success: The impact of status culture participation on the grades of U.S. high school students. *American Sociological Review*, *47*(2), 189–201. https://doi.org/10.2307/2094962

Dimaggio, P., & Mohr, J. (1996). The intergenerational transmission of cultural capital. In M. Wallace (Ed.), *Research on social stratification and mobility* (pp. 167–199). JAI Press.

DuBois, D. L., & Silverthorn, N. (2005). Natural mentoring relationships and adolescent health: Evidence from a national study. *American Journal of Public Health*, *95*(3), 518–524. https://doi.org/10.2105/AJPH.2003.031476

Dumais, S. A. (2008). Adolescents' time use and academic achievement: A test of the reproduction and mobility models*. *Social*

Science Quarterly, *89*(4), 867–886. https://doi.org/10.1111/j.1540-6237.2008.00588.x

Dumais, S. A., Kessinger, R. J., & Ghosh, B. (2012). Concerted cultivation and teachers' evaluations of students: Exploring the intersection of race and parents' educational attainment. *Sociological Perspectives*, *55*(1), 17–42. https://doi.org/10.1525/sop.2012.55.1.17

Dumais, S. A., & Ward, A. (2010). Cultural capital and first-generation college success. *Poetics*, *38*(3), 245–265. https://doi.org/10.1016/j.poetic.2009.11.011

Eby, L. T., Allen, T. D., Evans, S. C., Ng, T., & DuBois, D. L. (2008). Does mentoring matter? A multidisciplinary meta-analysis comparing mentored and non-mentored individuals. *Journal of Vocational Behavior*, *72*(2), 254–267. https://doi.org/10.1016/j.jvb.2007.04.005

Erickson, L. D., McDonald, S., & Elder, G. H. (2009). Informal mentors and education: Complementary or compensatory resources? *Sociology of Education*, *82*(4), 344–367. https://doi.org/10.1177/003804070908200403

Farkas, G. (2017). *Human capital or cultural capital?: Ethnicity and poverty groups in an urban school district* (2nd ed.). Routledge.

Farkas, G., Grobe, R. P., Sheehan, D., & Shuan, Y. (1990). Cultural resources and school success: Gender, ethnicity, and poverty groups within an urban school district. *American Sociological Review*, *55*(1), 127–142. https://doi.org/10.2307/2095708

Farmer-Hinton, R. L. (2008). Social capital and college planning: Students of color using school networks for support and guidance. *Education and Urban Society*, *41*(1), 127–157. https://doi.org/10.1177/0013124508321373

Gaddis, S. M. (2012). What's in a relationship? An examination of social capital, race and class in mentoring relationships. *Social Forces*, *90*(4), 1237–1269. https://doi.org/10.1093/sf/sos003

Gaddis, S. M. (2013). The influence of habitus in the relationship between cultural capital and academic achievement. *Social Science Research*, *42*(1), 1–13. https://doi.org/10.1016/j.ssresearch.2012.08.002

Gaddis, S. M. (2015). Discrimination in the credential society: An audit study of race and college selectivity in the labor market. *Social Forces*, *93*(4), 1451–1479. https://doi.org/10.1093/sf/sou111

Granovetter, M. S. (1973). The strength of weak ties. *American Journal of Sociology*, *78*(6), 1360–1380. https://doi.org/10.1086/225469

Greene, J. P., Erickson, H. H., Watson, A. R., & Beck, M. I. (2018). The play's the thing: Experimentally examining the social and cognitive effects of school field trips to live theater performances. *Educational Researcher*, *47*(4), 246–254. https://doi.org/10.3102/0013189X18761034

Hardie, J. H. (2015). The best laid plans: Social capital in the development of girls' educational and occupational plans. *Social Problems*, *62*(2), 241–265. https://doi.org/10.1093/socpro/spv003

Hardie, J. H. (2018). Rethinking school-based ties: Social class and the role of institutional agents in adolescents' College Plans. *Teachers College Record*, *120*, 1–49. https://doi.org/10.1177/016146811812000705

Hofferth, S. L., Boisjoly, J., & Duncan, G. J. (1998). Parents' extrafamilial resources and children's school attainment. *Sociology of Education*, *71*(3), 246–268. https://doi.org/10.2307/2673204

Holland, M. M. (2015). Trusting each other: Student-counselor relationships in diverse high schools. *Sociology of Education*, *88*(3), 244–262. https://doi.org/10.1177/0038040715591347

Holland, M. M. (2019). *Divergent paths to college: Race, class, and inequality in high schools*. Rutgers University Press.

Horvat, E. M., Weininger, E. B., & Lareau, A. (2003). From social ties to social capital: Class differences in the relations between schools and parent networks. *American Educational Research Journal*, *40*(2), 319–351. https://doi.org/10.3102/00028312040002319

Hu, A., & Yin, C. (2021). The distinction between the absolute and relative advantages of cultural capital: Different conceptualizations, different consequences. *Sociology*, *55*(4), 803–822. https://doi.org/10.1177/0038038520973588

Jack, A. A. (2014). Culture shock revisited: The social and cultural contingencies to class marginality. *Sociological Forum*, *29*(2), 453–475. https://doi.org/10.1111/socf.12092

Jack, A. A. (2016). (No) Harm in asking: Class, acquired cultural capital, and academic engagement at an elite university. *Sociology of Education*, *89*(1), 1–19. https://doi.org/10.1177/0038040715614913

Jack, A. A. (2019). *The privileged poor: How elite colleges are failing disadvantaged students*. Harvard University Press.

Jackson, M. O. (2020). A typology of social capital and associated network measures. *Social Choice and Welfare*, *54*(2), 311–336. https://doi.org/10.1007/s00355-019-01189-3

Jæger, M. M. (2009). Equal access but unequal outcomes: Cultural capital and educational choice in a meritocratic society. *Social Forces*, *87*(4), 1943–1971. https://doi.org/10.1353/sof.0.0192

Jæger, M. M. (2011). Does cultural capital really affect academic achievement? New evidence from combined sibling and panel data. *Sociology of Education*, *84*(4), 281–298. https://doi.org/10.1177/0038040711417010

Jæger, M. M. (2022). *Chapter 7: Cultural capital and educational inequality: An assessment of the state of the art*. https://www.elgaronline.com/edcollchap-oa/book/9781789909432/book-part-9781789909432-15.xml

Jæger, M. M., & Møllegaard, S. (2017). Cultural capital, teacher bias, and educational success: New evidence from monozygotic twins. *Social Science Research*, *65*, 130–144. https://doi.org/10.1016/j.ssresearch.2017.04.003

Kisida, B., Greene, J. P., & Bowen, D. H. (2014). Creating cultural consumers the dynamics of cultural capital acquisition. *Sociology of Education*, *87*(4), 281–295. https://doi.org/10.1177/0038040714549076

Kozlowski, K. P. (2015). Culture or teacher bias? Racial and ethnic variation in student–teacher effort assessment match/mismatch. *Race and Social Problems*, *7*(1), 43–59. https://doi.org/10.1007/s12552-014-9138-x

Kwon, S.-W., & Adler, P. S. (2014). Social capital: Maturation of a field of research. *Academy of Management Review*, *39*(4), 412–422. https://doi.org/10.5465/amr.2014.0210

Lakon, C. M., Godette, D. C., & Hipp, J. R. (2008). Network-based approaches for measuring social capital. In I. Kawachi, S. V. Subramanian, & D. Kim (Eds.), *Social capital and health* (pp.

63–81). Springer. https://doi.org/10.1007/978-0-387-71311-3_4

Lamont, M., & Lareau, A. (1988). Cultural capital: Allusions, gaps and glissandos in recent theoretical developments. *Sociological Theory*, *6*(2), 153–168. https://doi.org/10.2307/202113

Lareau, A. (2000). *Home advantage: Social class and parental intervention in elementary education* (2nd ed.). Rowman & Littlefield Publishers.

Lareau, A. (2011). *Unequal childhoods: Class, race, and family life* (2nd ed.). University of California Press.

Lareau, A. (2015). Cultural knowledge and social inequality. *American Sociological Review*, *80*(1), 1–27. https://doi.org/10.1177/0003122414565814

Lareau, A., & Calarco, J. M. (2012). Class, cultural capital, and institutions: The case of families and schools. In S. T. Fiske & H. R. Markus (Eds.), *Facing social class: How societal rank influences interaction* (pp. 61–86). Russell Sage Foundation.

Lareau, A., & Weininger, E. B. (2003). Cultural capital in educational research: A critical assessment. *Theory and Society*, *32*(5–6), 567–606. https://doi.org/10.1023/B:RYSO.0000004951.04408.b0

Lee, E. M., & Kramer, R. (2013). Out with the old, in with the new? Habitus and social mobility at selective colleges. *Sociology of Education*, *86*(1), 18–35. https://doi.org/10.1177/0038040712445519

Lehmann, W. (2014). Habitus transformation and hidden injuries successful working-class university students. *Sociology of Education*, *87*(1), 1–15. https://doi.org/10.1177/0038040713498777

Lin, N. (2002). *Social capital: A theory of social structure and action*. Cambridge University Press.

Lin, N. (2008). A network theory of social capital. In D. Castiglione, J. W. Van Deth, & G. Wolleb (Eds.), *The handbook of social capital* (pp. 50–69). Oxford University Press.

Lin, N., Ensel, W. M., & Vaughn, J. C. (1981). Social resources and strength of ties: Structural factors in occupational status attainment. *American Sociological Review*, *46*(4), 393–405. https://doi.org/10.2307/2095260

Matsuoka, R. (2019). Concerted cultivation developed in a standardized education system. *Social Science Research*, *77*, 161–178. https://doi.org/10.1016/j.ssresearch.2018.08.011

McNeal, R. B. (1999). Parental involvement as social capital: Differential effectiveness on science achievement, truancy, and dropping out. *Social Forces*, *78*(1), 117–144. https://doi.org/10.1093/sf/78.1.117

Morgan, S. L., & Sørensen, A. B. (1999). Parental networks, social closure, and mathematics learning: A test of Coleman's social capital explanation of school effects. *American Sociological Review*, *64*(5), 661–681. https://doi.org/10.2307/2657368

Mouw, T. (2003). Social capital and finding a job: Do contacts matter? *American Sociological Review*, *68*(6), 868–898. https://doi.org/10.2307/1519749

Mouw, T. (2006). Estimating the causal effect of social capital: A review of recent research. *Annual Review of Sociology*, *32*(1), 79–102. https://doi.org/10.1146/annurev.soc.32.061604.123150

Noble, J., & Davies, P. (2009). Cultural capital as an explanation of variation in participation in higher education. *British Journal of Sociology of Education*, *30*(5), 591–605. https://doi.org/10.1080/01425690903101098

Nora, A. (2004). The role of habitus and cultural capital in choosing a college, transitioning from high school to higher education, and persisting in college among minority and nonminority students. *Journal of Hispanic Higher Education*, *3*(2), 180–208. https://doi.org/10.1177/1538192704263189

Parcel, T. L., & Dufur, M. J. (2001). Capital at home and at school: Effects on student achievement*. *Social Forces*, *79*(3), 881–911. https://doi.org/10.1353/sof.2001.0021

Pedulla, D. S., & Pager, D. (2019). Race and networks in the job search process. *American Sociological Review*, *84*(6), 983–1012. https://doi.org/10.1177/0003122419883255

Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology*, *24*(1), 1–24. https://doi.org/10.1146/annurev.soc.24.1.1

Ream, R. K., & Palardy, G. J. (2008). Reexamining social class differences in the availability and the educational utility of parental social capital. *American Educational Research Journal*, *45*(2), 238–273. https://doi.org/10.3102/0002831207308643

Richards, B. N. (2020). When class is colorblind: A race-conscious model for cultural capital research in education. *Sociology Compass*, *14*(7), e12789. https://doi.org/10.1111/soc4.12786

Richards, B. N. (2022). Help-seeking behaviors as cultural capital: Cultural guides and the transition from high school to college among low-income first generation students. *Social Problems*, *69*(1), 241–260. https://doi.org/10.1093/socpro/spaa023

Rivera, L. A. (2011). Ivies, extracurriculars, and exclusion: Elite employers' use of educational credentials. *Research in Social Stratification and Mobility*, *29*(1), 71–90. https://doi.org/10.1016/j.rssm.2010.12.001

Rivera, L. A. (2012). Hiring as cultural matching the case of elite professional service firms. *American Sociological Review*, *77*(6), 999–1022. https://doi.org/10.1177/0003122412463213

Roksa, J., & Potter, D. (2011). Parenting and academic achievement intergenerational transmission of educational advantage. *Sociology of Education*, *84*(4), 299–321. https://doi.org/10.1177/0038040711417013

Sablan, J. R., & Tierney, W. G. (2014). The changing nature of cultural capital. In M. B. Paulsen (Ed.), *Higher education: Handbook of theory and research* (pp. 153–188). Springer Netherlands. http://link.springer.com/chapter/10.1007/978-94-017-8005-6_4

Sandefur, G. D., Meier, A. M., & Campbell, M. E. (2006). Family resources, social capital, and college attendance. *Social Science Research*, *35*(2), 525–553. https://doi.org/10.1016/j.ssresearch.2004.11.003

Smith, S. S. (2008). A Question of access or mobilization? Understanding inefficacious job referral networks among the Black poor. In N. Lin & B. H. Erickson (Eds.), *Social capital: An international research program* (pp. 157–181). Oxford University Press.

Stanton-Salazar, R. D. (1997). A social capital framework for understanding the socialization of racial minority children and youths. *Harvard Educational Review*, *67*(1), 1–41. https://doi.org/10.17763/haer.67.1.140676g74018u73k

Stanton-Salazar, R. D. (2001). *Manufacturing hope and despair: The school and kin support networks of U.S.-Mexican youth*. Teachers College Press.

Stanton-Salazar, R. D. (2011). A social capital framework for the study of institutional agents and their role in the empowerment

of low-status students and youth. *Youth & Society*, *43*(3), 1066–1109. https://doi.org/10.1177/0044118X10382877

Stanton-Salazar, R. D., & Dornbusch, S. M. (1995). Social capital and the reproduction of inequality: Information networks among Mexican-origin high school students. *Sociology of Education*, *68*(2), 116–135. https://doi.org/10.2307/2112778

Stephens, N. M., Townsend, S. S. M., Markus, H. R., & Phillips, L. T. (2012). A cultural mismatch: Independent cultural norms produce greater increases in cortisol and more negative emotions among first-generation college students. *Journal of Experimental Social Psychology*, *48*(6), 1389–1393. https://doi.org/10.1016/j.jesp.2012.07.008

Stevens, M. L. (2007). *Creating a class: College admissions and the education of elites*. Harvard University Press.

Streib, J. (2011). Class reproduction by four year olds. *Qualitative Sociology*, *34*(2), 337–352. https://doi.org/10.1007/s11133-011-9193-1

Stuber, J. M. (2011). *Inside the college gates: How class and culture matter in higher education*. Lexington Books.

Tan, C. Y. (2017). Conceptual diversity, moderators, and theoretical issues in quantitative studies of cultural capital theory. *Educational Review*, *69*(5), 600–619. https://doi.org/10.1080/00131911.2017.1288085

Teachman, J. D., Paasch, K., & Carver, K. (1996). Social capital and dropping out of school early. *Journal of Marriage and Family*, *58*(3), 773–783. https://doi.org/10.2307/353735

Tramonte, L., & Willms, J. D. (2010). Cultural capital and its effects on education outcomes. *Economics of Education Review*, *29*(2), 200–213. https://doi.org/10.1016/j.econedurev.2009.06.003

Van der Gaag, M., & Snijders, T. (2004). Proposals for the measurement of individual social capital. In H. Flap & B. Völker (Eds.), *Creation and returns of social capital* (pp. 172–187). Routledge.

Wildhagen, T. (2009). Why does cultural capital matter for high school academic performance? An empirical assessment of teacher-selection and self-selection mechanisms as explanations of the cultural capital effect. *The Sociological Quarterly*, *50*(1), 173–200. https://doi.org/10.1111/j.1533-8525.2008.01137.x

Yee, A. (2016). The unwritten rules of engagement: Social class differences in undergraduates' academic strategies. *The Journal of Higher Education*, *87*(6), 831–858. https://doi.org/10.1080/00221546.2016.11780889

Zarifa, D., Kim, J., Seward, B., & Walters, D. (2018). What's taking you so long? Examining the effects of social class on completing a bachelor's degree in four years. *Sociology of Education*, *91*(4), 290–322. https://doi.org/10.1177/0038040718802258

Authors

S. MICHAEL GADDIS is a senior research scientist in research and policy partnerships at NWEA; michael.gaddis@nwea.org. His research interests include inequality, race & ethnicity, discrimination, labor markets, sociology of education, higher education, correspondence audits, and experimental methods.

JOSEPH MURPHY is a graduate student in the Department of Sociology at UCLA. His research interests include stratification, education, and race.