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Japanese Version of Concerted Cultivation Associated with Adaptation to Lower Secondary Education

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Abstract

Observing child-rearing strategies practiced by elementary school children's middle-class parents in the United States, Annette Lareau coined the term "concerted cultivation," describing the middle-class distinctive parenting pattern. These parents intentionally structure their children's daily lives, for example, by enrolling them in extracurricular activities to develop their cognitive and non-cognitive skills. Concerted cultivation was also observed in Japan, while previous studies have suggested some dissimilarities between the United States and Japan regarding middle-class parenting styles, possibly derived from the two nations' different features of educational systems. Therefore, I investigate whether concerted cultivation practiced by Japanese middle-class parents has distinctive characteristics using nationally representative longitudinal data on children in Japan, while considering the Japanese education system's important features different from those in the United States (i.e., standardization level and educational selection's timing). I also explore whether different levels of cumulative experiences acquired through Japanese concerted cultivation assist in differentiating children's adaptation to lower secondary education. This study's findings demonstrate how college-educated parents transmit their advantages to their children through a distinctive pattern of concerted cultivation developed in response to Japan's standardized education system with its high-stakes educational selection in secondary education.

Keywords: Concerted cultivation, Japan, Parental involvement, Elementary education, Transition to lower secondary education
JEL classification: I20, I21, I24

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Introduction

In "*Unequal Childhoods*," middle-class parents in the U.S. practice child-rearing strategies to develop their elementary school children's cognitive and non-cognitive skills (Lareau 2003, 2011). The term "concerted cultivation" was coined to explain the logic of the middle-class distinctive parenting pattern through which these parents intentionally structured their child's daily lives, for example, by enrolling them in extracurricular activities (EAs). Following Lareau's qualitative work, studies using large-scale data indicate that U.S. middle-class parents practiced concerted cultivation (Bodovski and Farkas 2008; Bodovski 2010; Carolan 2016; Cheadle and Amato 2011; Lareau, Weininger, Conley et al. 2011; Potter and Roksa 2013).

Concerted cultivation was observed in another society with distinctively different contexts from those of the U.S. Notably, social class-based differences in parenting in Japan were identified. Qualitative and quantitative approaches through interviews and analyses of cross-sectional nationally representative data indicated that Japan's college-educated mothers engaged in parenting practices described as "rigorous parenting," which is very similar to the concerted cultivation observed by Lareau (2003) (Honda 2008). Using longitudinal data on elementary school children (1^{st}–4^{th} grades), Matsuoka, Nakamuro, and Inui (2015) also demonstrated how parental advantages are transmitted to their children outside the formal education system in the non-US context. Specifically, children with college-educated parents are more likely to be raised with concerted cultivation, influencing children's learning time, interpreted as effort, outside school hours.

These studies have identified social class disparities in Japan's parenting practices, enriching the social reproduction literature. However, no study has rigorously investigated potential differences between middle-class child-rearing practices that can be understood as concerted cultivation developed in U.S. contexts and those in Japan with a distinctly different education system from U.S. Particularly, Japanese compulsory education is considered more egalitarian (Cummings 1980), partly because of the progressive funding policy (Kariya 2009, 2010); the central government distributes national resources to equalize the quality and quantity of learning opportunities across prefectures, while the education system's other aspects, such as the national curriculum guidelines and textbook authorization system, are also standardized. This strongly contrasts with the very decentralized U.S. system. In addition, while the U.S. offers comprehensive upper secondary education, Japanese high

schools are highly stratified (e.g., LeTendre, Hofer, and Shimizu 2003): 9th grade students in Japan take high school admission examinations at the end of their junior high school education and then go on to high schools that match with their demonstrated academic performance. Thus, the first critical education selection's timing is much earlier in Japan than in the U.S. Importantly, several studies (e.g., Yamamoto and Brinton 2010) have repeatedly found that the high school a particular student attends greatly shapes that individual's future educational attainment. Therefore, there are clear academic requirements with national curriculum guidelines in the egalitarian education system backed by the progressive funding policy, and ninth graders are tested for academic proficiency (primarily through written examinations) at the end of junior high school, greatly influencing each student's educational trajectory in the Japanese education system.

Given these vast differences between the Japanese context of a highly standardized compulsory education system with a highly consequential educational selection event in 9th grade and the U.S. context of a highly de-centralized education system with comprehensive high school education followed by college admissions as the major educational selection event, possibly college-educated parents in Japan and the U.S. practice concerted cultivation in different ways. Evidently, while disparities between parental education levels concerning children's participation in extracurricular leisure activities such as art and sports do not significantly change between 3rd and 5th grades (Potter and Roksa 2013), the period which I focus on, some studies hint at potential specific characteristics in middle-class parenting in the Japanese context. For example, using cross-sectional data on parents with elementary school children from 1st to 6th grade, Suzuki (2010) provides descriptive statistics of children's participation in EAs and states that children's main activities outside the school system shift from sports to academics including *juku*, a major form of shadow education services, offering additional enrichment and/or remedial learning opportunities for improving children's academic performance in school in exchange for tuition. Evidently, the same data shows that participation rates in EAs in the sports and arts categories gradually increase from 1st grade, peak in 3rd and 4th grade (having equivalent rates) for sports and 4th grade for arts, then gradually decrease from 4th to 6th grades (Nishijima, Kimura, and Suzuki 2012; Suzuki 2010). Meanwhile, the participation rate for academic activities including *juku* attendance consistently increases from 1st to 6th grade. Although these reports used cross-sectional data gathered from different children in each elementary school grade rather than longitudinal data following the same children over several years, the data suggest that, on average, parents shift

their strategies regarding EAs around 4th grade. Importantly, the timing of enrolling children in EAs and *juku* appears to differ depending on parents' education (Sano, Senoh, Nakamura et al. 2016): college-educated mothers intentionally provide additional learning opportunities for their children regarding the services used and the timing of starting and stopping them (Honda 2008). Briefly, these studies on social class-based parenting disparities in Japan show that there are likely to be some differences in shifting strategies in accordance with socioeconomic status (SES). Thus, advantaged parents shift their parenting practices as to organizing their children's time outside the highly standardized education system: the concerted cultivation practiced in Japan may be uniquely developed in Japanese society in response to the education system's specific characteristics. Accordingly, I specifically investigate whether concerted cultivation as practiced by Japanese middle-class parents has distinctive characteristics. Additionally, different levels of cumulative experiences acquired through the Japanese version of concerted cultivation are assessed regarding their role in differentiating children's adaptation to lower secondary education: investigating whether "unequal childhoods" lead to unequal transitions to education's next stage in a society with an egalitarian education system. Thus, I use large-scale nationally representative longitudinal data on Japanese children collected by the Ministry of Health, Labour and Welfare, while considering the education system's characteristics, especially how and when educational selection takes place.

Literature Review

Concerted cultivation

To explain the processes by which intergenerational transmission of advantage occurs despite the public education's existence, scholars have devoted considerable effort to revealing SES-based disparities in parenting practices. A pertinent example is the ethnographic study of elementary school children and their parents (Lareau 2003, 2011). The term "concerted cultivation" indicates the cultural logic of middle-class parents that generate particular patterns of parenting practices. Specially, middle-class parents intentionally engage in child-rearing practices such as (1) structuring their children's daily lives through orchestrating how children spend time by means of adult-led organized activities and limits on TV time, (2) reasoning with children through interactive conversations, and (3) actively interacting with social institutions including schools for the children's sake. These intentional practices of organizing children's lives are intended to benefit their children's cognitive and

non-cognitive development. Conversely, working-class and poor parents rear via "accomplishment of natural growth," wherein parents do not structure how their children spend time, use directive expressions with their children, and interact with social institutions less frequently. Through comparison of these distinctively different parenting practices, Lareau (2003, 2011) illuminated the process details of social reproduction at the elementary education stage. Importantly, later studies (Bodovski and Farkas 2008; Bodovski 2010; Carolan 2016; Cheadle and Amato 2011; Potter and Roksa 2013), including a chapter (Lareau, Weininger, Conley et al. 2011) in the second edition of Lareau's work (Lareau 2011) based on large-scale data in the U.S., provides empirical findings on the association between social class and parenting practices such as middle-class parents' concerted cultivation, including more frequent use of EAs (Covay and Carbonaro 2010). Other smaller-scale but notable studies also show social class differences in parenting practices: middle-class parents intentionally select EAs that will help their children develop their interests and talents (Bennett, Lutz, and Jayaram 2012). The quality and quantity of summer activity participations vary among 4th graders depending on the families' social class (Chin and Phillips 2004). Importantly, social class differences in parenting (e.g., different ways of organizing time outside school hours) reproduce advantages for middle-class children and disadvantages for those from working-class and poor families (Lareau 2003, 2011). Evidently, parenting practices interpreted as concerted cultivation are associated with achievement, according to quantitative studies based on longitudinal data from the U.S. (Bodovski and Farkas 2008; Carolan 2016; Cheadle 2009).

Social class-differences in parenting practices in Japanese contexts

Building on Lareau (2003, 2011) and studies conducted in Japan identifying social class-based differences in parenting (e.g., Kanbara and Takata 2000, Kataoka 2001), Honda (2008) conducted a study using qualitative and quantitative approaches to assess parenting practices used by different social classes and their association with children's later educational and occupational outcomes. Specifically, she interviewed 39 mothers with elementary school-aged children (from 4th to 6th grade) and also analyzed quantitative data from a nationwide survey completed by 1890 pairs of mothers and their children (from 15 to 29 years old). As revealed in the interviews, college-educated mothers practice concerted cultivation by intentionally using EAs and *juku*, limiting TV/game time, and intervening in children's studying at home. In the meantime, non-college educated mothers are less likely to

organize their children's lives in such ways. Honda (2008) contends that these practices are similar to those understood as "accomplishment of natural growth" as described by Lareau (2003, 2011). Results of the survey analysis indicate that higher SES mothers tend to practice concerted cultivation in their forms of disciplining children at home, their high academic expectations, and their practice of sending their children to *juku* institutions during the elementary school years. These are considered "rigorous" child-rearing practices that correspond to concerted cultivation. While these mothers in high SES families also engage in "natural" parenting practices, such as listening to children's voices, letting them have various types of experiences, and allowing them to play outside, they focus more on "rigorous" child-rearing than their lower SES counterparts do (Honda 2008).

Another study using quantitative data from four cities also indicate disparities in parenting practices by 5th graders' mothers in Tokyo: mothers with more education are more likely to send their children to shadow education institutions for enrichment purposes and spend more money on education, and their children spend more hours studying than those with less educated mothers do (Sugihara 2011). Furthermore, another qualitative study provides accounts of social class differences in child-rearing practices through interviews with mothers over the years when their children were in preschool through 2nd grade. Middle-class mothers attempted to cultivate their children's learning interests and foster their study habits by, for example, using educational services (e.g., EAs) and checking their children's academic progress. They also use shadow education services like *juku* as additional learning opportunities for their children since they see themselves as having little control over school education (Yamamoto 2015). On the other hand, working-class mothers appear to believe that children's interests develop without intervention. In addition to these studies, building on Lareau's and Honda's work, Matsuoka (2015a, 2016) demonstrates SES-based parenting differences using large-scale longitudinal data on Japan's elementary school children. College-educated parents tend to practice concerted cultivation by actively participating in school events and activities (Matsuoka 2015a) and more frequently using EAs and shadow education services (Matsuoka 2016), compared to non-college educated counterparts.

These social class differences in parenting practices appear to result in unequal achievements and attainments in Japan as well. Concretely, the pattern of "rigorous" child-rearing, corresponding to "concerted cultivation", in the elementary school years significantly predicts children's level of academic performance in 9th grade, according to the multiple regression analysis' results using nationwide mother–child pair data. A student's academic

standing in 9th grade is associated with their final education attainment (four-year university or higher), partly determining whether that individual will obtain a full-time job associated with higher income levels. These associations found in retrospective mother–child data indicate that "rigorous" child-rearing in the elementary school years plays a crucial role associated with academic performance in 9th grade, influencing future educational and occupational attainments (Honda 2008). While other studies about SES-based parenting strategies rely on cross-sectional and regional data, recent studies using large-scale national longitudinal data also reveal that social-class differences in parenting practices such as college-educated parents' concerted cultivation influence elementary school-aged children's study efforts (Matsuoka et al. 2015) and school orientation (Matsuoka 2015a).

Rationale: Parenting practices developed in response to a standardized education system with upper secondary education's critical education selection

Parents use different strategies depending on the education system's specific features wherein their children are enrolled. Other than the cited studies assessing Japanese society, a study using data of South Korea is notable; Park, Byun and Kim (2011) provides detailed descriptions and discussions of how parents are involved in their children's education in a highly standardized education system. Specifically, parents in South Korea have little influence over school education due the standardized education processes inside schools including curricula. As a response to the contexts, parents exert substantial effort to select appropriate private tutoring for their children's particular needs (Park et al. 2011). Other studies indicate that effects of parental involvement vary based on institutional features of education systems. For example, a comparative study using PISA data shows varying effects of parental involvement according to standardization levels (i.e., national, regional or not centralized) of each nation's education system regarding curriculum, textbook and examinations. In a standardized education system with visible nationally standardized academic requirements like that of Japan, parental involvement such as child-parent communication facilitates lower-SES students' learning, while the same practices are less likely to help low-SES students in nonstandardized systems wherein parents need to be knowledgeable about schooling and providing resources to help their children successfully navigate school (Park 2008). Another comparative study (Takenoshita 2013) assesses two societies in Asia: Japan and South Korea. Data from Tokyo and Seoul indicate that parental

involvement influences junior high school students in Japan, but not in Seoul; this is due to the major educational selection event's timing in each country. Since Japan has strongly differentiated high school tracks (between-high school tracks), parental involvement before the high-stakes high school admission process is critical, while parental involvement becomes important later in Seoul, specifically, before college admissions, a major educational selection event in South Korea (Takenoshita 2013).

Similar to these studies assessing parental involvement in particular contexts, some studies have identified potential characteristics of concerted cultivation specific to Japanese parents, developed in response to educational selection events' timing in the standardized education system, while the literature indicates that Japanese college-educated parents' intentional practices of structuring their children's lives are similar to those that Lareau (2003, 2011) found in the US. Specifically, college-educated parents in Japan are likely to change their strategies over the years of their children's development. Besides descriptive statistics on the changes in EA-participation rates (Nishijima et al. 2012; Suzuki 2010), a study that investigated three different age cohorts at two time points (Sano, Senoh, Nakamura et al. 2016) suggests differences in the timing of *juku* enrollment associated with parents' educational backgrounds: college-educated parents start sending their children to *juku* in 3rd and 4th grade, and a larger percentage of them become do so around 5th or 6th grade, presumably to prepare for private junior high school admission. Based on interviews, Honda (2008) describes cases of college-educated mothers who sent their children to *juku* to prepare them for education's next stage. Another case demonstrates a child who was formerly enrolled in various EAs eventually quit all to focus on *juku* attendance. College-educated mothers are conscious of EAs importance and make intentional choices about which EAs their children participate in (Honda, 2008).

Given these studies, the advantaged parents intentionally shift their strategies while considering, depending on each child's development, which types of after-school activities will help them become equipped with the desirable cognitive and non-cognitive skills including attitudes and behaviors that will lead to life success. This means that these parents are likely to modify their strategies in response to academic requirements, standardized under the national study guidelines, partly based on their own educational experiences as college graduates: as the transition time to lower secondary education gradually approaches, they begin to prepare their children for the critical educational selection event of high school admissions. Despite the importance of understanding parenting practices as major sources of

the achievement and attainment gaps that exist in Japanese society, no study has specifically focused on clarifying whether parents shift their strategies as children become older over the years of elementary education in the egalitarian system. In addition to the shifts in parenting practices, I further assess whether parenting strategies in the elementary school years partly explain the disparities in children's adaptation to lower secondary education: assessing whether "unequal childhoods" actually lead to unequal success in the transition to junior high school education, a critical period of preparation before the major educational selection event of high school admissions.

Research questions and hypotheses

I tackle two research questions aimed at empirically identifying the Japanese version of concerted cultivation and its association with children's adaptation to lower secondary education.

Research Question 1(RQ1): Do college-educated parents shift their parenting strategies from providing diverse experiences to focusing on academic preparation in the elementary education's last years?

While the literature using data of Japan (e.g., Matsuoka 2015b, 2016) shows that higher-SES children are more likely to attend *juku* and other types of educationally enriching EAs, some studies, especially Honda (2008), indicate that high-SES parents shift their parenting practices including how and when they enroll their children in EAs and how they interpret the value of providing diverse experiences for their children while also focusing on more academic preparation. Thus, I hypothesize that college-educated (higher-SES in Japanese contexts) parents shift their structuring of their children's time away from diverse experiences and toward academic preparation over the last years of elementary school education. Specifically, parents with college educations are more likely to enroll their children in EAs including sports and art, but gradually start sending their children to *juku* for academic preparation and reduce EAs-participation starting in the 4th grade, while controlling for factors such as annual household income. I also assess how often children are exposed to cultural activities (CAs) other than EAs, with the expectation that CA participation will show the same pattern as EA enrollment: CA participation will be more frequent among children with college-educated parents but will decrease over the years as junior high school approaches. Likewise, building on Lareau's and Honda's work, as part of a parenting practice

involving structuring their children's daily life, these parents are hypothesized to limit the time their children spend watching TV and playing games more than their non-college-educated counterparts do, especially as the children become older. Thus, the hypothesis for RQ1 is that college-educated parents are more likely to customize their children' lives through enrollment in EAs and participation in CAs in 3rd grade, but their focus shifts from providing diverse experiences through EAs and CAs to academic preparation, which means sending children to *juku* and limiting media time. Specifically, parents' college education along with household income, another aspect of SES, will negatively relate to indicators of increased exposure to diverse experiences such as EAs and CAs, implying that college-educated high-SES parents have their children spend less time on these activities over elementary education's last three years. Parents' education is also expected to be negatively related to an increase in media time but positively related to an increase in *juku* participation.

Research Question 2 (RQ2): Are children's cumulative experiences in academic and nonacademic activities during the elementary school years associated with their adaptation to the first year of secondary education?

Experiences in cultural activities are often used to indicate an individual's cultural capital, as coined by Bourdieu (e.g., 1986). Specifically, studies often measure embodied cultural capital (e.g., internalized values, attitudes, and tastes) in the form of participation in EAs (e.g., Dumais 2002; Jæger 2011), or in frequency of visiting museums (e.g., Byun, Schofer, and Kim 2012; Jæger 2011), attending concerts (e.g., Dumais 2002; Xu and Hampden-Thompson 2012) and reading habits (e.g., Jæger 2011). This quantification method was applied to studies assessing Japanese society (Kataoka 2001; Yamamoto and Brinton 2010) as well. To fully capture children's cumulative experiences, I employ longitudinal data that creates a cumulative measure of children's activity participation: not only whether a particular child is participating in an activity for a wave the survey but also whether that child has a history of participation (Potter and Roksa 2013). This yields information about cumulative experiences, capturing socialization processes over time.

Having the kinds of experiences interpreted as cultural capital is critically important for securing a favorable educational trajectory, even in Japan with its egalitarian education system (Kataoka 2001; Yamamoto and Brinton 2010). A study using not nationally representative but rather longitudinal data from the U.S. explains how cultural capital exerts its effect over achievement and outlines the association's mechanism between cultural capital

and educational outcomes. Cultural capital differentiates one's "habitus" as coined by Bourdieu (e.g., Bourdieu and Wacquant 1992) which, in turn, influences achievement (Gaddis 2013). This suggest that having experiences understood as cultural capital helps children internalize values consistent with those of school education (e.g., studying hard, having positive attitudes toward teachers and what is learned, familiarity with school subjects) and that this affects their achievement.

Building on these studies, I investigate whether the accumulation of experiences during childhood regarded as cultural capital is associated with favorable values and attitudes consistent with educational success. For this purpose, with cumulative measures of outside school-experiences interpreted as embodied cultural capital as they have been in previous literature, I hypothesize that children with college-educated parents tend to have academic and nonacademic educationally enriching cumulative experiences. This greater accumulation of diverse experiences is expected to help children to adapt to lower secondary education, i.e., junior high school. To determine whether children with greater cumulative experiences experience a smoother adaptation to lower secondary education, I create three variables as important indicators of a 7th grader's success in the transition to secondary education and familiarity with the predominant values of junior high schooling. These are learning time per week outside school hours, as an indicator of study effort, attitude toward school education, and college expectations. These indicators should reveal which students attempt to comply with their schools' values and engage in competition to obtain higher educational credentials. Using these indicators of adaptation to lower secondary education, I hypothesize that 7th graders with cumulative experiences are more likely to spend more time studying outside school lesson hours, have a positive orientation toward junior high school, and expect to attend college.

Data

To determine whether parents shift their practices over the elementary school years and whether children's cumulative experiences partly explain the observed disparities in transition to lower secondary education, I employ large-scale longitudinal data from The Longitudinal Survey of Babies in the 21st Century administrated by the Japanese Ministry of Health, Labour and Welfare. This longitudinal survey, initiated in 2001, annually collects a wide range of information regarding children who were born between January 10 and 17 or

between July 10 and 17 via mail; the number of babies who were born during these two periods, i.e., the survey's target population, is 53,575. Given that no systematic nor seasonal patterns were found in the birth population according to the nation's monthly vital statistics, this survey's data is thought to be representative. In the survey's each wave, the response rate was around 90% (Ministry of Health, Labour and Welfare). Most data used was obtained from the survey's five consecutive waves (waves 9 to 13, from 3rd to 7th grade), annually administered on January 18th and July 18th. In most cases, mothers filled in the questionnaire while children were asked to respond to some parts of it starting in wave 11 (in 5th grade).

Time-varying dependent variables for RQ1

I first use four variables as time-varying indicators of concerted cultivation based on responses to four waves (waves from 9 to 12: 3rd to 6th grade). These are *juku*, EAs, media time, and CAs. *Juku* is a dummy variable (0 or 1) and the other three variables are continuous, showing how children spend time outside school hours over the four-year period of investigation.

Juku is a dummy variable reporting whether children participated in *juku*, shadow education institution during each annual wave. As children need to be physically present to receive the educational services at *juku* institutions, participation should indicate parents' relatively strong intention to organize children's time to help their children become more academically prepared in the narrow sense (through remedial or enriching lessons that help children achieve specific academic goals including passing entrance examinations for private junior high schools, receiving positive immediate evaluations from school teachers, and preparing for smooth transition to junior high school education).

Extracurricular Activities (EAs) reports how many kinds of EAs each child participated in during each wave. This includes sports (e.g., swimming and baseball), cultural lessons (e.g., music, painting, and calligraphy), and academic lessons not necessarily meant to directly increase children's school performance or related to evaluations in elementary education but that help them acquire skills and develop attitudes generally aligned with academic success in the long run, including English (not evaluated in elementary education when the survey's waves were launched) and abacus (not directly evaluated in school though it should help children do well in arithmetic). Regardless of their type, these EAs are adult-led structured learning opportunities that parents need to pay for and that children physically participate. This variable should indicate the degree of concerted cultivation's one aspect by

parents; a larger number of this variable indicates parents' intention to help their children have diverse experiences that will not directly enhance school performance but are expected to exert some positive impact on their children as to acquiring certain skills and attitudes desirable in school.

Another continuous time-varying variable is media time, created based on responses regarding how many hours children spend watching TV (including DVDs and videos) and playing videogames (including PC and portable games) each week and on holidays during each wave. From the time categories (e.g., more than 1 hour but less than 2 hours for holidays) selected by the respondents, hours spent on these activities per week were computed for each wave. This variable should describe the degree of parental control over each child's time outside school hours, as these activities are considered unrelated to the development of skills and attitudes consistent with academic success, though some TV/games may be educationally beneficial.

The fourth dependent variable for RQ1 is CAs, reporting how often children participated in cultural activities or experiences per year. The respondents were asked to choose from "none (coded 0)," "one to two times (coded 1.5)," and "more than 3 times (coded 3)" for each of three categories of "cultural experiences": (a) visiting zoo, botanical garden, aquarium, museum, and art museum, (b) attending or experiencing musical, theatrical, and classical art events, and (c) going to sports events. As this question was not available in Wave 9, responses in Wave 8 were used for Wave 9. This time-varying variable ranges from 0 to 9 for each wave, indicating the degree to which each child engaged in cultural experiences outside the school system.

Besides these four time-varying dependent variables, three independent variables were created: Housewife, Number of Siblings, and Father's Absence. These are also time-varying as each variable was reported at each wave. Number of Siblings means the number of siblings that a target child has. Housewife indicates that the child's mother is a housewife or is neither employed nor searching for a job. This should indicate the mother's physical presence at home, increasing the degree to which she can monitor her child outside school hours. Lastly, Father's Absence indicates that the father does not live with the child for reasons including divorce and living away from home due to work. A 0 for this variable indicates more parental monitoring made possible by the father's physical presence, compared to those living without fathers.

Independent variables for RQ1

I create time-invariant variables to explain differences between children and those in a growth trajectory of each time-varying variable. This section first describes important SES variables (i.e., Parents' Education and Annual Household Income) and then provides detailed descriptions of the other demographic information.

Parents' Education: This is the key independent variable explaining differences in how children spend time outside school hours and how this changes over the elementary school years. I utilize information collected at Wave 2 to create this variable which ranges from 0 to 2 indicating the number of college-educated parents for each child. A child was coded as 2 if the child had two college-educated parents (N = 8102). Likewise, a score of 1 means one college-educated parent (N = 8745), and 0 means that parents have no higher education (N = 12646).[1] The definition of college education includes two-year higher education institutions. This way of coding was used based on Kikkawa (2009) who explains that the social line that most effectively divides people in Japanese society is whether they have a college education and that an individuals' education level is the strongest predictor toward many social issues including education. Studies regarding concerted cultivation also indicate that parents' educational attainment strongly relates to parenting practices, while other social class characteristics including income are more weakly related to them (Cheadle and Amato 2011). Building on these previous studies including those assessing Japanese society, this variable is used as an SES indicator.

Annual Household Income: This log-transformed variable was computed using responses to three categories of income (i.e., father's, mother's, and those from other sources) at Wave 7 as no such question was included in Wave 9.

Control variables were also operationalized as follows.

Born in January: This binary variable shows whether a child was born in January and is thus six months older than those born in July in the survey. Children born in January are relatively young within their age cohort as Japanese school years began in April. Thus, any negative effect related to this variable can be understood as a relative effect of younger age within the cohort.

Female: A 1 for this variable means the child is female. This was created based on information from Wave 1.

Major metropolitan areas, Large City and City: These are binary (0 or 1). A 1 for "major metropolitan areas" indicates that a child lives in one of three major metropolitan

areas: the Kanto region (Tokyo, Saitama, Chiba, and Kanagawa), Aichi (where Nagoya is located), or Kyoto, Osaka, and Hyogo (where Kobe is). A 0 for this variable indicates that the child lives in any other area, i.e., one of the 39 prefectures. This categorization is based on other studies addressing college expectations and college attendance, wherein students from these three metropolitan areas and larger cities are more likely to expect to attend college and to actually attend college (e.g., Hozawa 2016)[2]. To identify the city's size where a child lives, "large city" was created to represent one of the thirteen major cities such as Tokyo's 23 wards and Yokohama City, while "city" was created to represent all other cities, while the reference group for "large city" and "city" includes non-cities and smaller municipalities (i.e., *gun*).

Number of siblings (Mean), Father's absence (Mean), and Housewife (Mean): These are means of each time-varying variable. For example, if a child's mother is a housewife for all four years examined, "Housewife (Mean)" is recorded as 1, indicating a relatively large number of hours with the mother physically present at home, and likely a greater degree of the child's maternal monitoring.

Dependent variables for RQ2

I employ data from Wave 13 (7th grade, junior high school's first year) to assess whether the experiences that children accumulate during the elementary education's last four years studied in RQ1 are associated with how well they adapt to the beginning of secondary education. For this purpose, three aspects of adaption to the major transition period in education are quantified as dependent variables for RQ2: learning time outside school hours, orientation to junior high school, and college expectations.

Learning Time: Following the literature (e.g., Kariya, 2001, 2013; Matsuoka et al. 2015), this was created as an indicator of effort. For Wave 13, children were asked to choose a category (e.g., more than 1 hour but less than 2 hours) to represent the time they spent on studying at home, at *juku*, and in other non-school places (i.e., preparing for and reviewing lessons and studying for admissions) on weekdays and holidays. An additional explanation for this question states that time spent on school homework should not be included. Responses were coded to the median (e.g., 1.5 hours for "more than 1 hour less than 2 hours") for each response (for weekdays and holidays), then multiplied by the number of days in each week (5 weekdays and 2 holidays) to create a variable indicating each student's learning time per week outside the school lesson hours. As this includes time spent at *juku*, an independent variable representing *juku* participation in 7th grade was created and included in the analysis.

School Orientation: This variable was coded based on responses to five items on the topic of "are you satisfied with school life?" Specifically, children were asked to choose one of the four options ranging from "strongly think so (re-coded 3)" to "do not think so at all (coded 0)" to the following statements: "(I) have good relationships with school teachers," "there are many useful (beneficial) classes," "there are many fun classes," "schoolwork is useful for the future," and "(I) understand the contents of classes well." This variable's alpha reliability was .987 with skewness and kurtosis of −0.451 and 0.130, respectively. A higher score for this variable indicates that the child is experiencing a smooth transition and is relatively well adapted to junior high school life despite its differences from elementary education.

College Expectations: Children (freshmen in junior high school at Wave 13) were asked to select one of six options regarding their future related to educational attainments. Specifically, they were asked to indicate the educational stage at which they think they will start working, for example, after graduation from "junior high school" or from "university" with the last option being "I have not been thinking of it (when to start working) concretely." A binary variable (0 or 1) was created using the responses to the question. This should indicate the students who have a clear idea of going on to university at the time of the survey in 7th grade.

Additional independent variables for RQ2

Besides the independent variables used for answering RQ1 with the HLM (Hierarchical Linear Modeling) growth curve modeling, additional variables were created to explain differences in the three dependent variables among 7th graders. Key variables for RQ2 are those indicating cumulative experiences in the last four years of elementary education regarding *juku*, EAs, media time, and CAs assessed in the analyses for RQ1. Other independent variables coded using information of Wave 13 were also created.

Juku-Experience: Four dummy variables (Juku 1, Juku 2, Juku 3, and Juku 4) were created to indicate the number of years wherein children participated in *juku* from 3rd to 6th grades. For example, those who attended *juku* in all the years are indicated as 1 for Juku 4 (4th dummy variable) in the analysis, while a reference group includes those who did not have any *juku* experience during those years. These dummy variables should indicate cumulative experiences in receiving *juku* lessons.

EAs-Experience: This continuous variable is a mean score representing EA enrollment in the four years. This variable was coded in this manner as repeatedly measured

EAs are continuous variables. A sum of the variables at each of the four waves could be computed, but to avoid missing cases, the mean score was used instead of the sum, and it was then multiplied by 4 (years). The variable was then standardized (mean = 0, standard deviation = 1) to help interpret results of the regression analyses.

Media Time-Experience: Like EAs, this indicates the quantity of media time over the four years. It was also standardized.

CAs-Experience: This also shows a quantity of CA participation in the last four years of elementary education. This was also standardized.

Annual Household Income (W13): This was created in the same manner as Annual Household Income (W7) used for the first set of analyses. Although the survey did not ask for a response about income every year, this new information was included in the analyses for RQ2 as it reflects household income levels in the 7th grade year more accurately.

Private School: This dummy variable indicates whether a child attends a private junior high school instead of a neighborhood public school. The reference category of this school type variable is public school (29633 students, 86% attending public schools; no information on school type was available for 554 students out of 30187 cases) along with some other types.[3]

Juku Attendance (W13): This dummy variable was created to control the learning time variable as those attending *juku* spent more time studying outside school hours.

Housewife, Number of Siblings, and Father's Absence, Major Metropolitan Areas, Large City, and City were also coded based on information collected at Wave 13, in the same manner used for the analyses for RQ1.

Method

I first performed HLM growth curve analyses to investigate (a) whether children with college-educated parents tend to spend their time in a more organized fashion through measuring *juku* attendance, EAs, media time, and CAs outside the school system, and (b) whether these children's parents shift their focus from providing diverse experiences to academic preparation over the last years of elementary education. Growth curve modeling enabled to observe differences between children (in "a") and differences between the growth trajectories of children (in "b"). The number of children included in the analyses is 30187. This is the number of questionnaire forms returned in Wave 13.[4] A larger number of cases could have been included in the analyses for RQ1 if those that did not respond to Wave 13

had been included, but to maintain consistency between the RQ1 and RQ2 analyses, the same number of cases were used in RQ1 as in RQ2, after I had verified that this would not change the results for RQ1.

Modeling

For RQ1, the growth curve modeling was estimated with the following equation for each dependent variable.[5]

Level 1 (changes: within children): $Y_{ti} = \pi_{0i} + \pi_{1i}$ (Time $_{ti}$) + $\pi_{Z\underline{i}}$ (Demographic $_{ti}$) + e_{ti}

Level 2 (differences among children): $\pi_{0i} = \beta_{00} + \beta_{01}X_i + r_{0i}$, $\pi_{1i} = \beta_{10} + \beta_{11}X_i + r_{1i}$, $\pi_{Zi} = \beta_{Z0}$

π_{0i} represents a random intercept which varies between cases (children), and π_{1i} a random slope of Time which ranges from 0 (Wave 9, 3rd grade) to 3 (Wave 12, 6th grade, the last year of elementary education). $\pi_{Z\underline{i}}$ shows the other three time-varying group-mean variables (i.e., Number of Siblings, Housewife, Father's Absence) which do not randomly vary among children in the models. To explain variations of the random intercept (between children) and variations in slope (differences between growth trajectories of children), the same set of variables are included: $\beta_{01}X_i$ and $\beta_{11}X_{i.}$ These independent variables are Parents' Education and the other demographic and geographical information. To answer RQ2, multivariate regression analyses were performed with three dependent variables. I use Mplus Ver 7.4 (Muthén and Muthén 1998–2015) using maximum likelihood estimation with robust standard errors to conduct all the models with multiple imputation of the independent variables (level 1 and 2 variables for the growth modeling, and all the independent variables for RQ2)[6]. Cases dropped from an analysis were due to the absence of data on a relevant dependent variable.

Results

Descriptive statistics

Table 1 includes descriptive statistics for the variables of level 1 (within-children) and level 2 (between-children) used in the HLM growth curve analyses answering RQ1. Likewise, Table 2 presents descriptive statistics for the additional variables. Four variables indicating cumulative experiences are derived from the data gathered in Waves 9 to 12, and the remaining variables were collected at Wave 13 in 7th grade. These variables are used in the multivariate regression analyses to estimate results for RQ2.

Disparities in experiences by parents' education level

Table 3 shows means of the four variables for each category indicating the degree to which child's time outside school hours was intentionally organized in each grade based on parents' education level. For understanding trends in the experience-disparities, differences between the grades (3rd to 6th) are added to each variable and each parental education-category. According to supplemental analyses of covariance, these disparities between the parental education-groups are significant even controlling for household income (Wave 7) and other demographic information such as child's gender and number of siblings ($p < .001$). As hypothesized, children with college-educated parents tend to have experiences that can develop skills or attitudes useful or favorably regarded in the school system at the 3rd grade level. Over the following four years, a larger percentage of children with college-educated parents, especially those with two college-graduate parents, increasingly became to attend *juku*. By the last year of elementary education, 6th grade, about half of all students attended *juku* institutions, while about 30% of those with no college-educated parents do so. Notably, the differences in *juku* participation between 6th and 3rd grades became larger among the three groups of parental educational attainment: from 13.8%-differences to 25.2%. These suggest college-educated parents have already started preparing their children for academics by sending their children to *juku* institutions in 3rd grade, while other parents in the same category increasingly followed suit over the years, by starting early and increasingly growing number of *juku* participation.

I observe similar patterns of concerted cultivation in the results regarding media time. Children with college-educated parents spent less time using media (TV and games) compared to their counterparts with less educated parents: those with two college-educated parents spent about 16 hours per week on media, those with one college-educated parent spent about 20 hours, and those with no college-educated parents spent about 22 hours. This is likely due to the practice of college-educated parents controlling or organizing their children's time in a structured manner as a part of concerted cultivation. Importantly, while media time increased over the years as children became older, the time-differences between the three groups became larger. The time spent using media increased between 3rd and 6th grade more dramatically for children with less educated parents, increasing by about 5.5 hours among those with no college-educated parents but only by roughly 4 hours among those with two college-educated parents. This implies that parents allowed their children to

engage in media as the children become older, but college-educated parents restricted this increase in media time more than their less educated counterparts did.

In addition, I find EAs and CAs sharing the same pattern. Concretely, while college-educated parents' children have greater exposure to EAs and CAs in 3rd grade, their participation in such activities consistently decreases over the years. Children with no college-educated parents also decreasingly participated in such activities, but the degree of this decrease was lesser than it was among children with college-educated parent(s). Thus, college-educated parents allowed their children to have diverse experiences in the form of EAs and CAs in 3rd grade, but gradually decreased these activities as children became older and approached the end of elementary education.

Combining these results with the clear disparities between the parental education-groups while controlling for household income and other demographic information reveals the Japanese version of concerted cultivation's distinctive patterns. College-educated parents start sending their children to *juku* early and to limit their children's media time, enroll them in EAs, and expose them to cultural activities in 3rd grade; all these constitute relatively intense parenting, appearing as a form of concerted cultivation. Over time, however, these parents increasingly send their children to *juku* and limit the increase in their children's media time, while decreasing children's participation in EAs and CAs. These suggest that college-educated parents in Japan practice conventional concerted cultivation in that they provide structured time fostering children's cognitive and non-cognitive skills and attitudes, addressing diverse aspects of education, but later start to shift their strategy away from providing diverse experiences and toward providing narrower academic preparation.

Results of HLM growth analyses

To answer RQ1 more specifically, HLM growth curve analyses were performed. Table 4 provides sets of results of the analyses consistent with what we observe in Table 3. As expected, at the between-individual level, Parents' Education is positively associated with participation in *juku*, EAs, and CAs and negatively with media time ($p < .001$); children with more parents with higher education tend to participate in supplementary education lessons, EAs, and CAs and to spend less time on media compared to their counterparts with less educated parents, even when all demographic and regional variables are held constant. Household income, another aspect of SES, also relates to the dependent variables in the same manner as Parents' Education: children with parents earning higher incomes tend to be

exposed to more adult-led structured learning opportunities. Importantly, the results obtained from the random time slope (growth curve) support the hypothesis for RQ1. Parents' Education positively predicts increasing participation in *juku*, but is negatively associated with EAs time slopes, media time, and CAs. Thus, children with highly educated parents increasingly participated in *juku* but gradually withdrew from participation in EAs and CAs, with a relatively small increase in time spent using media, while the other factors are controlled in each model. Household Income appears to predict each growth trajectory in the same manner as Parents' Education: children from higher income families increasingly focus on academic participation through *juku* attendance and decreasingly experienced EAs and CAs while their media time increases at a relatively low rate. All these findings indicate that college-educated parents begin shifting their parental strategies from exposing children to diverse experiences to providing narrower academic preparation in the last three years of elementary education as the transition to lower secondary education approaches.

Disparities in cumulative experiences of activities outside the school system

Table 5 describes the disparities in children's cumulative experiences over the four years depending on parents' educational attainment. Specifically, instead of using a sum of scores of the time-varying variables, a mean score was computed first and was then multiplied four times (for the four waves) to avoid missing cases. As Table 5 demonstrates, children with more college-educated parents tend to have greater cumulative experiences of *juku*, EAs, and CAs and less exposure to media time. Note that these scores are significantly different among the parents' education groups ($p < .001$) even when SES and other demographic variables (e.g., household income and gender) are controlled according to an additional analysis of covariance. Thus, this table suggests that, despite the downward trend of enrollment in EAs and participation in CAs for children with college-educated parents in the last three years of elementary school education, these children have more cumulative experiences as they began participating in them earlier and more frequently than their counterparts with less educated parents did. *Juku*, which was coded from 0 (no experience during the four years) to 4 (using it in every observed year) to compute the mean score for this table, was used more by children with parents holding college degrees. Likewise, college-educated parents organize their children's time more, as their children spent less time on media. These scores were estimated based on the variables used for the analyses to answer RQ1, showing differences among the three groups per year, with the exception of media time

representing hours spent on media per week. Thus, for media time, if the trends of these variables persist for each year, the differences would be much greater in numbers. Concretely, the difference between the mean scores of media time between children with Parents' Education scores of 0 and those with scores of 2 is about 26.5 hours (99–72.5), signifying the difference in media time per week over the four years between children with no and two college-educated parents. A rough estimate of the differences between the two groups over the four years is about 1378 hours (26.5 hours × 52 weeks), which is hardly negligible. The differences in the other variables in Table 5 also appear substantial, given that each activity requires adult-led structured learning time (e.g., attending *juku* generally means taking a 1- to 2-hour lesson two or three times per week with some homework even when *juku* is only used for supplemental purposes, while *juku* intended to prepare a child for a private junior high school would be much more demanding).

Differing levels of adaptation to lower secondary education

Table 6 provides mean scores in each parental education category for three indicators of children's adaptation to lower secondary education: learning time outside school hours per week, attitude toward junior high school (school orientation), and presence or absence of college expectations in 7th grade. These show differences in the indicators according to parents' education level: 7th graders with two college-educated parents tend to study longer, have more positive attitudes toward junior high school, and hold college expectations, while those with non-college-educated parents are likely to spend less time studying outside school lessons, demonstrate less positive attitudes toward school, and hold lower educational expectations. Furthermore, the more college-educated parents a child has, the better adapted to lower secondary education that child appears to be.

Results of multivariate regression analyses

To determine whether the patterns shown in Table 6 would remain when several important variables were controlled, multivariate regression analyses were performed. Table 7 indicates children's cumulative experiences in the last four years of elementary school education are significantly associated with each indicator except juku-experience for school orientation. Specifically, a greater accumulation of *juku*-experience in the last four years of

elementary education partly explains the differences in children's learning time outside school hours while a number of aspects of SES and demographic information including household income, school type, city size, *juku* attendance in 7th grade, are held constant. The other three continuous variables representing cumulative experiences (i.e., EAs, media time, and CAs) were standardized (mean = 0, SD = 1) for the results' easier interpretation. Children with 1 SD of cumulative experiences in EAs and CAs spend more hours studying outside school (0.212 for EAs and 0.297 for CAs). Those spending more hours using media in the last four years of elementary school education spend fewer hours outside school studying: 1 SD of the cumulative experiences in media correlates to -0.815 hours of studying. Likewise, children who have more cumulative experiences in EAs and CAs and less exposure to media time are more likely to have positive school orientations and college expectations. Meanwhile, accumulation of *juku*-experience is also significantly associated with children's college expectations, but has no significant relation with school orientation in 7th grade. Further, a low R-square of the model with school orientation should be mentioned. In sum, the four types of cumulative experiences through the elementary school years partly explain the disparities in learning time, school orientation, and college expectations in 7th grade, even with other factors controlled[7].

Discussion

College-educated parents in Japan demonstrate parenting practices that can be understood as concerted cultivation when their children are in 3rd grade, providing diverse opportunities for their children in the form of a wide variety of nonacademic but enriching adult-led organized activities and cultural activities. Presumably, they employ such practices to cultivate their children's skills, talents, attitudes, and behaviors. These results appear to parallel with Lareau (2003, 2011) and subsequent quantitative studies observed in the U.S. (Bodovski and Farkas 2008; Bodovski 2010; Carolan 2016; Cheadle and Amato 2011; Lareau, Weininger, Conley et al. 2011; Potter and Roksa 2013). This pattern of intentional parenting by college-educated parents, verified using large-scale nationally representative data, is also consistent with patterns observed in previous studies of child-rearing in Japan (Honda 2008; Matsuoka 2015a, 2016; Matsuoka et al. 2015) built on Lareau (2003, 2011).

The distinctive new insight that I contribute to the field of social reproduction is the observation that college-educated parents in Japan shift their parenting practices over the last

years of elementary education, likely in response to the standardized education system and the timing of the critical educational selection event at the end of the junior high school period. In the U.S., children's participation rates in extracurricular activities are different depending on parents' education levels, but the differences appear constant between 3rd and 5th grades shown in Potter and Roksa (2013). In Japan, however, children's participation in EAs and CAs become limited over elementary education's last three years as college-educated parents in Japan shift their focus from providing diverse experiences to preparing children to meet the standardized education system's clear academic requirements articulated in the national curriculum guidelines. This shift in parental practices, supported by empirical findings, seems to be consistent with qualitative accounts wherein college-educated mothers intentionally start and stop enrolling their children in EAs (Honda 2008). As mothers see themselves as having little control over their children's school education (Yamamoto 2015), it seems that college-educated parents proactively seek and use EAs and provide CAs to cultivate their children's skills, talents, attitudes, tastes, and behaviors outside the school system, while limiting their children's access to TV and screen-based games. Further, their focus on academic preparation as represented by their children's *juku* attendance and decreased participation in EAs, CAs, and media time as lower secondary education approaches are well understood through the qualitative cases reported by Honda (2008): college-educated parents are concerned about their children's future performance in lower secondary education. Given the literature regarding the links between parental involvement and degrees of standardization of each nation's education system (Park 2008, Park et al. 2011) and those between parental involvement and the educational selection's timing (Takenoshita 2013), the results indicate that college-educated parents start preparing their children for junior high school education during the elementary school's last three years, as a child's academic performance in junior high school is critically important to obtain admission to one of the more highly-regarded high schools, ranked hierarchically according to the rates at which their graduates are accepted to competitive universities. Thus, college-educated parents start early to cultivate their children's skills and talents by using EAs and providing CAs, then later shift their focus to academic preparation, while their less educated counterparts start using EAs and providing CAs later.

Besides the parenting differences dependent on parents' education levels, the results' second part demonstrates how parenting strategies during elementary education affect how children adapt to lower secondary education. I demonstrate that children' cumulative

experiences are associated with better adaptation to lower secondary education. The findings indicate that children with more cumulative experiences in *juku*, EAs, and CAs and less time spent using media are more likely to have a smooth transition to junior high school education. This implies that, through their experiences in elementary education, children obtain "a sense of entitlement" (Lareau 2003, 2011), leading to (or constituting) a feel for the game—a "habitus" (e.g., Bourdieu and Wacquant 1992). Through parent-provided experiences (e.g., interactions with adult instructors of *juku* and EAs, exposure to diverse cultural events and institutions like museums, parental supervision of their media usage), children with college-educated parents feel more ready to engage in academic competition as evidenced by their studying longer outside school hours, having more positive attitudes toward junior high school education, and feeling entitled to become college graduates—they may feel that it is "natural" to aim at higher educational attainments partly based on childhood experiences accumulated outside the standardized education system due to their parents' decisions driven by concerted cultivation. As Gaddis (2013) demonstrates that having cultural capital affects achievement through the internalization of values, the study's findings indicate that Japanese children with college-educated parents internalize attitudes and confidence through their cumulative experiences in the elementary school years, while their counterparts have fewer experiences that would enable them to engage in educational competition. This way, parenting differences in childhood play a role in differentiating the life outcomes of children even in the society with the highly standardized compulsory education system.

Implications

Using longitudinal data enables to observe the shift in intentional parenting practices by college-educated parents. College-educated mothers practice "rigorous parenting" (corresponding to "concerted cultivation") but also value "natural parenting" (corresponding to "accomplishment of natural growth") based on mothers' responses to sets of survey questions about their parenting practices when their children were in elementary school (Honda 2008). This may seem to be somewhat puzzling, as "concerted cultivation" and "the accomplishment of natural growth" are distinctively different logics of parenting strategies indicated by Lareau, yet Honda's (2008) argument is understandable given the wording of the questions used in the analysis. College-educated mothers value not only academics and discipline but also opportunities for their children to be exposed to diverse experiences. This

apparent inconsistency is derived from the data's cross-sectional nature used by Honda (2008). As this study's findings indicate, college-educated parents in Japan shift their focus from providing diverse experiences in lower elementary education to focusing on academic preparation in elementary education's later years. Given this, the apparently inconsistent findings reported by Honda (2008) begin to make more sense: college-educated parents value diverse experiences for their children but begin to focus on narrower academic preparation to help their children do well in lower secondary education, paving the road toward competitive high school, which is preparation for higher education. The importance of investigating parenting practices over several years of children's development is highlighted; college-educated parents constantly monitor their children's progress and modify their strategies in relation to how and when their children face educational selection events. They value diverse experiences that will foster their children's skills and talents, but also understand that academic preparation is critical to meet their society's expectations. Thus, future studies should engage in longitudinal investigations, especially including data on students' achievements, as other researchers have done (Potter and Roksa 2013; Gaddis 2013). Ideally, future studies will reveal associations between cumulative experiences in childhood, junior high school performance, and later educational outcomes such as high school rank and final educational attainments to fully capture how social reproduction occurs in Japan. It will also be important to measure how cumulative experiences in diverse activities shape children's non-cognitive skills associated with educational outcomes, as alternate avenues of intergenerational transmission of advantage, and whether shifting strategies influence this process. Further, the results call for further comparative investigations into how different standardization levels (Park 2008, Park et al. 2011) and different timing of educational selection events (Takenoshita 2013) in different educational systems affect parenting strategies, and how social class differences influence the parenting strategies that promote the intergenerational transmission of inequality.

From a policy perspective, college-educated parents' shifting practices appear to mask the existence of "unequal childhoods" in Japan. Specifically, if older children are asked what EAs they did in elementary education, most individuals would name some EA experiences, making it look like all individuals pursued their own interests as desired. However, there are clear differences in EA participation as empirically shown. Without understanding the apparent vast disparities in accumulated experiences—not only *juku* but also EAs, CAs, and media time, the association between parental education level and

adaptation as measured in this study in terms of learning time (indication of effort), school orientation, and college expectations would remain invisible in the "egalitarian" compulsory education system. Thus, based on the understanding of the disparities, educationally enriching opportunities need to be provided to those children whose parents offer them fewer opportunities.

This study's findings also question the validity of the existing educational selection. College-educated parents focus on their children's academic preparation based on how the current education system and selection function; they prepare their children for school success for obtaining admission to the next stage of education (e.g., admission to competitive high schools and universities through conventional academic examinations). Whether this parental focus on preparing children during elementary education for future (mainly written) examinations is desirable is something that examination-oriented societies may have to reconsider.

Conclusion

In Japan's standardized compulsory education system with a high-stakes educational selection event determining access to strongly differentiated upper secondary schools, college-educated parents appear to practice a version of concerted cultivation considered different from that practiced by middle-class parents in the U.S., where the education system is decentralized with a comprehensive secondary education. The empirical findings shed light on the Japanese version of concerted cultivation. Shifting parental strategies indicate how the intergenerational transmission of advantage takes place in the standardized education system and how advantaged parents respond to the current conditions of educational competition for the sake of their children's futures. Besides verifying the shifting parental strategies used by college-educated parents in Japan, I clarify the cumulative advantages that college-educated parents' children have by the time they transition to lower secondary education, and then demonstrate that these cumulative advantages in academic and nonacademic experiences are associated with smoother adaptation to lower secondary education, creating gaps in junior high school. This study's findings provide a detailed explanation of the social reproduction mechanism in an "egalitarian" education system through SES-based parenting practices.

Notes

1 694 cases are missing for this variable. Results of this study would remain substantially the same using different ways of coding this variable (e.g., considering only four or more years of higher education as a college education).

2 When regional differences are controlled by including prefectural dummy variables, results do not differ from those presented here.

3 The other types of schools are national schools and “other types,” both of which are omitted from the model as the numbers of students in such schools are relatively small (503 students, 1.7% of the sample at Wave 13 attending national schools, and 135 students, 0.4%, attending “other types” of schools) and their inclusion would not change the results.

4 147 children who lived outside of Japan at the time of the wave were excluded.

5 A logit model was utilized with the binary dependent variable of Juku. Likewise, the study employed logit modeling for “College Aspirations”, a binary dependent variable for RQ2.

6 Findings of this study would not substantially change without multiple imputation.

7 Even when other types of control variables (e.g., children’s reading habits, the number of favorite school subjects, types of shadow education services other than juku, a dummy variable of national school) are included in the analyses, the main results remain unchanged.

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Table 1. Descriptive Statistics for Research Question 1

Variables	Mean	SD	Min	Max	Variables	Mean	SD	Min	Max
Level 1: Within Indivduals (Changes)									
Juku (SE) (N = 118064)					Media Time (N = 116684)				
Wave 9	0.185	0.388	0	1	Wave 9	19.699	9.981	0	86
Wave 10	0.241	0.428	0	1	Wave 10	20.475	10.203	0	91
Wave 11	0.304	0.460	0	1	Wave 11	23.834	13.292	0	91
Wave 12	0.371	0.483	0	1	Wave 12	24.656	13.903	0	91
Extracurricular Activities (EAs) (N = 118064)					Cultural Activities (CAs) (N = 110576)				
Wave 9	1.555	1.131	0	8	Wave 8	3.195	1.884	0	9
Wave 10	1.530	1.091	0	7	Wave 10	3.121	1.922	0	9
Wave 11	1.402	1.041	0	7	Wave 11	3.084	1.942	0	9
Wave 12	1.251	1.003	0	7	Wave 12	3.073	1.991	0	9
Number of siblings (N = 118064)					Father's absence (N = 118064)				
Wave 9	1.235	0.765	0	8	Wave 9	0.075	0.263	0	1
Wave 10	1.241	0.770	0	8	Wave 10	0.083	0.275	0	1
Wave 11	1.238	0.769	0	8	Wave 11	0.086	0.281	0	1
Wave 12	1.230	0.768	0	8	Wave 12	0.093	0.290	0	1
Level 2: Between Individuals (Differences)					Housewife (ref = all others) (N = 116264)				
Born in January (N =30187)					Wave 9	0.352	0.478	0	1
	0.501	0.500	0	1	Wave 10	0.330	0.470	0	1
Female (N =30187)					Wave 11	0.286	0.452	0	1
	0.483	0.500	0	1	Wave 12	0.256	0.436	0	1
Parents' Education (N = 29493)					Housewife (Mean) (N = 30007)				
	0.846	0.824	0	2		0.305	0.402	0	1
Annual Household Income (Wave 7) (N = 28279)					Major metropolitan areas (Wave 9) (N = 29732)				
	6.288	0.684	0	9.020		0.464	0.499	0	1
Number of siblings (Mean) (N = 30187)					Large City (Wave 9) (N = 29732)				
	1.238	0.758	0	8		0.252	0.434	0	1
Father's absence (Mean) (N = 30187)					City (Wave 9) (N = 29732)				
	0.085	0.260	0	1		0.653	0.476	0	1

Table 2. Additional Descriptive Statistics for Research Question 2 (Wave 13)

Variables	Mean	SD	Min	Max
Accumulated Experience				
Juku-Experience (ref.= none) (N = 27736)				
1	0.119	0.324	0	1
2	0.100	0.300	0	1
3	0.087	0.282	0	1
4	0.131	0.338	0	1
EAs-Experience (N = 30187)				
	1.433	0.944	0	6.75
Standardized	0	1	-1.5	5.633
Media Time-Experience (N = 30185)				
	22.16	9.934	0	78.5
Standardized	0	1	-2.2	5.671
CAs-Experience (N = 30138)				
	3.103	1.561	0	9
Standardized	0	1	-2	3.778
Dependent Variables				
Learning Time (Wave 13) (N = 29793)				
	9.400	6.633	0	45.5
School Orientation (Wave 13) (N = 29756)				
	10.641	2.851	0	15.0
College Expectations (Wave 13) (N =29731)				
	0.381	0.486	0	1

Variables	Mean	SD	Min	Max
Additional Control Variables				
Annual Household Income W13 (N = 29178)				
	6.364	0.701	0	9.720
Number of siblings (N = 30042)				
	1.214	0.775	0	8
Father's absence (N = 30187)				
	0.106	0.308	0	1
Housewife (N = 29680)				
	0.225	0.418	0	1
Juku Attendance (W13) (N = 30187)				
	0.420	0.494	0	1
Private School (N = 29633)				
	0.103	0.303	0	1
Major metropolitan areas (Wave 13) (N = 3018				
	0.467	0.499	0	1
Large City (Wave 13) (N = 30187)				
	0.262	0.440	0	1
City (Wave 13) (N = 30187)				
	0.649	0.477	0	1

Table 3. Averages by Parents' Education Attainment

Parents' Education	3rd	4th	5th	6th	Diff.
Juku (N = 118064)					6th-3rd
0	0.149	0.188	0.230	0.287	*0.138*
1	0.190	0.244	0.309	0.383	*0.193*
2	0.238	0.319	0.418	0.490	*0.252*
Extracurricular Activities (EAs) (N = 118064)					
0	1.245	1.261	1.190	1.082	*-0.163*
1	1.630	1.604	1.479	1.322	*-0.308*
2	1.978	1.884	1.667	1.451	*-0.527*

Parents' Education	3rd	4th	5th	6th	Diff.
Media Time (N = 116684)					6th-3rd
0	22.137	22.799	26.533	27.626	*5.489*
1	19.579	20.340	23.792	24.686	*5.107*
2	15.948	16.938	19.637	19.963	*4.015*
Cultural Activities (CAs) (N = 113937)					6th-2nd
0	2.817	2.734	2.734	2.769	*-0.049*
1	3.276	3.220	3.166	3.167	*-0.109*
2	3.703	3.620	3.547	3.455	*-0.248*

0, 1, and 2 represent the number of college-educated parents

Table 4. Results of HLM Growth Curve Analyses

	Juku (logit)		*EAs*		*Media Time*		*CAs*	
	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Between Individual Level	N = 30187		N = 30187		N = 30185		N = 30187	
Intercept (Threshold for Juku)	6.340 ***	0.240	1.352 ***	0.03	22.187 ***	0.225	2.895 ***	0.042
Born in Jan	0.435 ***	0.094	-0.041 **	0.012	1.848 ***	0.108	0.029	0.020
Female	-0.054	0.093	0.183 ***	0.012	-2.531 ***	0.107	-0.001	0.020
Household Income (W7)	1.155 ***	0.093	0.228 ***	0.011	-0.931 ***	0.095	0.258 ***	0.018
Parents' Education	0.467 ***	0.061	0.303 ***	0.008	-2.688 ***	0.070	0.389 ***	0.013
Metropolitan Areas	1.089 ***	0.098	0.157 ***	0.013	0.534 ***	0.116	-0.106 ***	0.022
Large City	1.427 ***	0.213	0.014	0.024	-0.160	0.215	0.439 ***	0.040
City	0.603 **	0.200	0.037	0.021	-0.068	0.191	0.135 ***	0.035
N of Siblings (Mean)	-0.722 ***	0.067	-0.120 ***	0.008	-0.067	0.074	-0.153 ***	0.035
House Wife (Mean)	-0.009	0.117	-0.080 ***	0.016	-0.717 ***	0.142	-0.077 **	0.026
Father's absence (Mean)	0.370	0.201	-0.188 ***	0.026	-0.477 *	0.237	-0.054	0.043
Residual Variances	31.127 ***	0.912	0.775 ***	0.008	56.48 ***	0.78	1.635 ***	0.019
Time Slope (Growth)								
Intercept	0.590 ***	0.087	-0.033 ***	0.01	2.210 ***	0.100	-0.013	0.017
Born in Jan	0.066	0.040	-0.020 ***	0.004	-0.217 ***	0.047	-0.038 ***	0.008
Female	-0.017	0.040	-0.007	0.004	0.028	0.047	-0.024 **	0.008
Household Income (W7)	0.225 ***	0.038	-0.032 ***	0.003	-0.122 **	0.041	-0.035 ***	0.006
Parents' Education	0.327 ***	0.025	-0.045 ***	0.003	-0.214 ***	0.031	-0.020 ***	0.005
Metropolitan Areas	0.318 ***	0.042	-0.050 ***	0.004	0.131 *	0.051	-0.013	0.009
Large City	0.337 ***	0.083	-0.038 ***	0.007	0.005	0.097	-0.031 *	0.016
City	0.058	0.074	-0.013 *	0.006	-0.023	0.085	0.013	0.014
N of Siblings (Mean)	-0.215 ***	0.028	0.024 ***	0.003	-0.057	0.032	0.024 ***	0.006
House Wife (Mean)	-0.067	0.050	-0.025 ***	0.005	-0.410 ***	0.061	-0.006	0.010
Father's absence (Mean)	-0.067	0.085	0.005	0.008	0.474 ***	0.108	-0.022	0.017
Residual Variances	3.102 ***	0.129	0.043 ***	0.001	7.467 ***	0.17	0.086 ***	0.003
Within-Individual Level	N = 118064		N = 118064		N = 116684		N = 110576	
N of Siblings	-0.159	0.148	-0.005	0.014	-0.046	0.206	-0.023	0.030
House Wife	-0.181 *	0.077	-0.002	0.008	-0.185	0.100	-0.025	0.018
Father's absence	-0.218	0.194	-0.102 ***	0.020	-0.125	0.246	-0.008	0.042
Residual Variances			0.244 ***	0.002	48.532 ***	0.484	1.652 ***	0.011

* p < .05, ** p < .01, *** p < .001., Coef.= Coefficient, SE = Standard Error

Table 5. Accumulated Experiences by Parents' Education Attainment in 7th grade (Wave 13)

Parents' Education	Juku	EAs	Media Time	Cultural Activities
0	0.881	4.770	99.039	11.019
1	1.154	6.031	88.303	12.769
2	1.484	6.979	72.475	14.289

0, 1, and 2 represent the number of college-educated parents. Juku ranges from 0 to 4

Table 6. Averages by Parents' Education Attainment in 7th grade (Wave 13)

Parents' Education	Learning Time per week	School Orientation	College Expectations (binary)
0	8.315	10.266	22.53%
1	9.554	10.728	40.79%
2	10.971	11.162	59.97%

0, 1, and 2 represent the number of college-educated parents

Table 7. Results of Multiple Regression Analyses in 7th grade

N = 30029	*Learning Time*		*School Orientation*		*College Expectations (logit)*		
	Coef.	SE	Coef.	SE	Coef.	SE	Odds Ratio
Accumulated Experiences							
Juku (ref.= none)							
1	0.381 **	0.117	-0.081	0.056	0.145 ***	0.047	1.156
2	0.760 ***	0.134	-0.027	0.062	0.289 ***	0.049	1.335
3	0.970 ***	0.146	0.012	0.070	0.402 ***	0.058	1.495
4	1.298 ***	0.129	0.066	0.059	0.405 ***	0.046	1.500
EAs (Standardized)	0.212 ***	0.039	0.184 ***	0.018	0.198 ***	0.015	1.219
Media Time (Standardized)	-0.815 ***	0.037	-0.278 ***	0.018	-0.172 ***	0.015	0.842
CAs (Standardized)	0.297 ***	0.037	0.186 ***	0.017	0.132 ***	0.014	1.142
Control Variables							
Born in Jan	-0.663 ***	0.068	-0.702 ***	0.032	-0.037	0.026	0.964
Female	0.888 ***	0.069	-0.287 ***	0.032	-0.159 ***	0.027	0.853
Household Income (W13)	0.196 **	0.064	0.118 ***	0.028	0.221 ***	0.025	1.247
Parents' Education	0.489 ***	0.047	0.207 ***	0.022	0.571 ***	0.017	1.771
N of Siblings (W13)	-0.476 ***	0.044	-0.120 ***	0.021	-0.241 ***	0.018	0.786
House Wife (W13)	0.422 ***	0.085	0.063	0.040	0.191 ***	0.032	1.210
Father's absence (W13)	-0.226	0.124	-0.230 ***	0.061	0.120 *	0.050	1.128
Private School	1.852 ***	0.141	0.392 ***	0.057	0.506 ***	0.046	1.659
Juku Attendance (W13)	4.418 ***	0.082	0.122 **	0.038	0.302 ***	0.031	1.353
Metropolitan Areas	-1.042 ***	0.073	-0.245 ***	0.034	0.008	0.028	1.008
Large City	-0.614 ***	0.138	-0.164 *	0.065	0.178 **	0.055	1.195
City	-0.159	0.123	-0.088	0.058	0.126 *	0.049	1.134
Intercept (Threshold for Ex	6.455 ***	0.416	10.483 ***	0.184	2.570 ***	0.167	
Residual Variances	34.512 ***	0.384	7.562 ***	0.065			
R-square	0.215		0.070		0.214		

* p < .05, ** p < .01, *** p < .001., Coef.= Coefficient, SE = Standard Error