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All personal names are given in the customary order in the native language of the person unless otherwise requested.

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We would like to thank Dr. Maggie Gibbons for her Japanese to English translations and Dr. Robert Sauté for his editorial and proofreading assistance.

Parent-child Relationships and Child Development

The Center for Social Research and Data Archives at the University of Tokyo celebrates its 20th Anniversary this year. The Center is the home of the Institute of Social Science's (ISS's) Social Science Japan Data Archive. This issue's (SSJN 56) featured articles, the product of a collaborative research initiative between the Benesse Educational Research and Development Institute and ISS, puts to use the Archive's panel surveys on parents and their children. Ishida Hiroshi describes the Center and the Data Archive and provides a succinct overview of the project. Kimura Haruo focuses on parents' concerns over children's lifestyles, including daily routines and study habits. Ota Masahi explores the effects of family socio-economic background on school children's abilities across grade levels. As a key in helping children to become independent, Tomabechi Natsuho examines family rules for factors that influences rule setting. Kagawa Mei looks into what contributes to mothers' feelings that they understand their children. She focuses especially on types of parenting styles. Elaborating on different types of parenting styles, Okabe Satoshi discusses their effects on children's learning.

Typically, Japanese school years are referred to as first through sixth grade in elementary school and first through third grade in middle school and in high school. Making it easier for our worldwide readers, we use 1st- through 12th-year to depict these grades in this issue's articles.

ISS Research Report introduces a new ISS associate professor Tanaka Ryuichi, who discusses his research in the economics of education. This issue's Focus on ISS, the last installment of the three-part series by Nakamura Naofumi and Genda Yuji on *Kibougaku* and disaster work, introduces a book born out of the *kibougaku* project.

The section on the ISS Contemporary Japan Group lists three recent speakers and their lectures. Please see the list of recent publications by ISS staff to find out their latest research.

Managing Editor, Ikeda Yoko

Table of Contents

Parent-child Relationships and Child Development

Everyday Life and Learning of Children: How Do Japanese Children Live and What Do Japanese Children Learn?[1]

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Introduction

The Institute of Social Science (ISS) of the University of Tokyo and the Benesse Educational Research and Development Institute launched a new project on "Everyday Life and Learning of Children" in January 2014. The two institutions have a long history of collaboration even before this new project began. The Benesse Educational Research and Development Institute or the BERD is one of leading research institutions on education in Japan. It has been conducting numerous surveys on education and publishing the results of the surveys as well as providing information about child-rearing and trends in educational practices. The Center for Social Research and Data Archives, which is housed in the ISS, manages the Social Science Japan Data Archive (SSJDA), which collects, preserves, and disseminates social surveys for academic research. Various surveys conducted by the BERD are deposited to the SSJDA and made available for academic use. More than 100 surveys conducted by the BERD are available through the SSJDA, including the two popular sets of surveys, Monograph Series: Elementary School Students Now and Monograph Series: The World of Junior High School Students. These surveys are frequently analyzed especially by graduate and undergraduate students.

To promote the use of social surveys deposited in the SSJDA, the Center for Social Research and Data Archives of the ISS organizes year-long Seminars on Secondary Analysis. The data sets deposited by the BERD were used in the Seminars in the past, and the staff from the BERD acted as lecturers in the Seminars. Based on these previous collaborations, the two institutions agreed to launch a new project and conduct a panel survey of students in elementary, middle, and high schools (grades 1 to 12) about their daily lives and learning experiences and of their parents about their ideas and attitudes towards child-rearing and their relationships with their children. The survey is called the Japanese Longitudinal Study of Children and Parents (JLSCP). It is a longitudinal survey which follows up the same students and parents for a number of years to observe changes.

The Project on "The Everyday Life and Learning of Children"

The new project on "The Everyday Life and Learning of Children" aims to understand the developmental process of learning and daily lives of students as well as changes in the practice and ideas of child-rearing and relationships between parents and children. In particular, the project

[1] The author is grateful to Hashimoto Naomi, Researcher at the Benesse Educational Research and Development Institute, and Kagawa Mei, Research Associate of the Institute of Social Science, University of Tokyo, for providing me with the details of the survey design of the project and the Japanese Longitudinal Study of Children and Parents and to the board members of the project for allowing me to introduce various materials related to the project. Figure 1 and Table 1 are based on the materials appeared in the Benesse Educational Research and Development Institute (ed.), *The 2015 Japanese Longitudinal Study of Children and Parents: Preliminary Findings* (Tokyo: The Benesse Holdings, 2016) and unpublished materials.

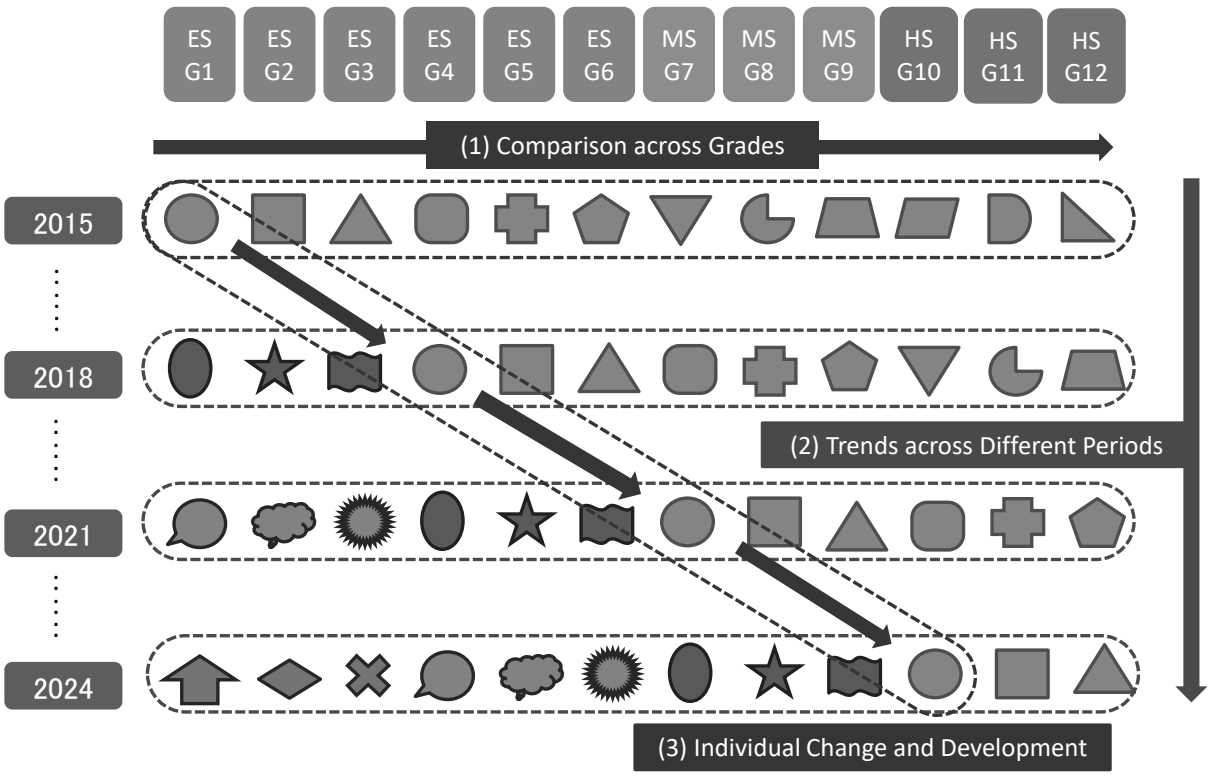
focuses on the pathways to independence among children. It attempts to describe the processes by which students acquire skills and become independent citizens with the ability to learn throughout their entire careers. This project covers students from a wide range of grades: elementary school (ES) students in grades 1 through 6, middle school (MS) students in grades 7 through 9, and high school (HS) students in grades 10 through 12. In addition to students, their parents are asked to fill out questionnaires. Because it is hard to ask students in ES grades 1, 2, and 3 to fill out questionnaires, responses about the behaviors of these students are obtained from their parents.

Figure 1 shows the survey design and three distinct types of analyses that can be conducted by our project. As shown at the top of the figure, the target of our analyses are students in ES grades 1-6, MS grades 7-9, and HS grades 10-12 and their parents. As shown on the rows of the figure, there will be multiple waves of the survey since the survey is longitudinal. The first wave was conducted in 2015, and we plan to conduct the survey every year. The first type of analysis that can be conducted using the survey involves comparison across grades at a particular point in time. We could compare responses to the same question (such as study time at home) by students in elementary, middle, and high school and examine differences (in study time) across different grades. We know from the results of the 2015 JLSCP that study time at home generally increases as the students advance the grade.

The second type of analysis pertains to trends across different periods. As shown in Figure 1, we can compare the results of the surveys conducted in 2015, 2018, 2021, and 2024 and examine changes in, for example, study time at home among first graders in ES. In this comparison, we will compare students in the same grade in different periods. It is possible, for example, to examine the impact of the introduction of a new curriculum on the first graders by comparing the results of surveys prior to and after the introduction of a new curriculum.

The third type of analysis takes advantage of the panel-type nature of survey design by examining individual change and development. Because repeating a grade is extremely rare in Japan, a student in ES grade 1 in 2015 is expected to be a student in ES grade 4 in 2018, a student in MS grade 1 in 2021, and a student in HS grade 1 in 2024. We will be able to observe the developmental process

Figure 1. Survey Design and Three Types of Analyses



of the same student as he/she moves from ES to MS to HS. He/she may experience changes in attitudes towards his/her study and his/her relationship with parents following the acquisition of cognitive and non-cognitive skills.

Another distinctive feature of our project deals with studying the pair of students and parents. Asking parents to fill out questionnaires allows researchers to obtain more accurate information about not only the characteristics of the parents, including their education, occupation, and income, but also their attitudes and opinions. These pieces of information are very hard to collect from the students. Furthermore, we should be able to perform the three types of comparative analyses discussed above using both student and parent data. The following examples illustrate the possible hypotheses that can be verified by our project. (1) We can examine whether the perceptions about how often students and mothers interact are consistent between students and parents and whether the consistency is more marked when the students are in earlier grades. (2) We can observe the impact of introduction of a new curriculum not only on students but also on parents and the relationship between the two. A new curriculum may increase the frequency of interactions between students and parents in ES while the introduction of a new curriculum may not have the same effect on the students of MS. (3) We can examine the parallel changes in individual students and individual parents over the years. The developmental learning process and acquisition of non-cognitive skills by students may lead to the changes in the ways their parents relate to students.

The Design of the Japanese Longitudinal Study of Children and Parents (JLSCP)

JLSCP is targeted at the pairs of students in elementary, middle, and high schools and their parents residing in Japan. The students were selected randomly from the list of students who were registered with the Benesse Corporation. Students were sampled separately from each school grade after they were stratified by regional block and whether they were members of *Shinken* seminars, supplementary educational program run by the Benesse Corporation. From February to May, 2014, the BERD sent requests to sampled pairs of students and parents asking to become monitors of the survey, and 21,569 pairs agreed to participate in the survey. In July and August 2015, the questionnaire survey was sent to these pairs of students and parent, and they either filled out the questionnaire by hand and returned by mail or responded through the internet.

Table 1 shows the number of monitored pairs who were sent questionnaires, the number of stu-

Table 1. The Number of Monitored Pairs, the Number of Responses, and the Response Rates by Grade

Grades	Children & Parents	Children			Parents		
	Number of Monitored Pairs	Number of Responses	Response Rates	Sub-total Response Rates	Number of Responses	Response Rates	Sub-total Response Rates
ES Grade 1	1,910	—	—	—	1,755	91.9%	85.5%
ES Grate 2	1,774	—			1,434	80.8%	
ES Grade 3	1,820	—			1,510	83.0%	
ES Grade 4	1,709	1,345	78.7%	78.2%	1,345	78.7%	78.2%
ES Grade 5	1,704	1,292	75.8%		1,293	75.9%	
ES Grade 6	1,667	1,335	80.1%		1,336	80.1%	
MS Grade 7	1,717	1,343	78.2%	76.1%	1,351	78.7%	76.8%
MS Grade 8	1,838	1,366	74.3%		1,384	75.3%	
MS Grade 9	1,824	1,381	75.7%		1,393	76.4%	
HS Grade 10	1,795	1,267	70.6%	69.9%	1,287	71.7%	70.7%
HS Grade 11	1,808	1,291	71.4%		1,302	72.0%	
HS Grade 12	2,003	1,360	67.9%		1,374	68.6%	
Total	21,569	11,980	74.6%	–	16,764	77.7%	–

dents and parents who responded, and the response rates by grade level. Among the parents, 77.7 percent of 21,569 responded to the survey. Among the students, the response rate was 74.6 percent (of the total of 16,065 students). The response rates were highest among students in elementary schools and their parents, followed by those in middle schools, and the lowest rates were from those in high schools. The parents of students in ES grade 1 had the highest response rate, 92 percent. The response rates of parents were always higher than those of students.

The questionnaire is composed of three sets of questions. The first set contains basic questions about daily lives (time use), behaviors (activities at school and after school), school work (study time, favorite subjects), and educational and occupational aspirations. This set of questions is asked every year. The second set contains questions asked every three years. Three kinds of rotating questions are constructed: (1) items related to assistance with household chores and places to play and hang around, (2) items related to study, including methods and the content of study at school, and (3) items related to social relationships, including relationships with friends and adults. The third set of questions focuses on a specific topic and is asked in only one year.

The Future of the JLSCP

The second wave of the JLSCP was already conducted in July and August 2016, and the data set is currently cleaned and coded. The questionnaire of the 2016 JLSCP contained the same basic questions which are repeated every year and a series of questions about study (the method and content of study at school and students' attitudes towards studying) that are asked every three years. The third wave of the JLSCP is currently in the planning stage. The preliminary findings from the 2016 JLSCP will be reported at the public forum in 2017. The articles included in this issue grew out of the first public forum held in July 2016 reporting the analyses of the first wave (2015) of the JLSCP. Our project hopes not only to continue conducting the longitudinal survey but also to report major findings from subsequent waves of the JLSCP.

Attaining Self-reliance in Uncertain Times: Children and Parents Share Their Experiences

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1. Introduction

The Institute for Social Science at the University of Tokyo and the Benesse Educational Research and Development Institute (BERD) have launched a major research initiative, the Japanese Longitudinal Study of Children and Parents (JLSCP), a panel survey of over 20,000 families. BERD's research on children, parents, and teachers dates back to its founding in 1980. It has conducted more than 400 surveys, invaluable sources of empirical insight into education and parenting in Japan that have been used in a variety of ways. However, most of these surveys have not followed individual people over time, which is why JLSCP is a breakthrough project that will reveal "parent and child development" in unprecedented detail.

Panel studies of students in elementary and middle schools and their parents are rare. Two notable exceptions are the Japan Education Longitudinal Study (JELS) led by Mimizuka Hiroaki at Ochanomizu University (see Mimizuka and Makino 2007) and the Japan Child Panel Survey (JCPS) conducted by Keio University's Panel Data Research Center (Akabayashi, Naoi, and Shikishima 2016). Both of these surveys investigate children's academic abilities and the formative factors thereof.

In light of these studies and others, the designers of the JLSCP made children's development of self-reliance a focal point of the new survey. To best capture children's progress towards independence, the survey will follow children from first grade through twelfth. This long span allows researchers to ask detailed questions about lifestyles and values as well as academics. The multifaceted results will be a valuable source of evidence for reviewing and considering educational policies with a broader perspective.

This paper draws upon the first round of surveys, conducted in 2015, and introduces some of the more striking results that illustrate what children and parents are experiencing at present. As only one round of surveys has been completed, we cannot look at how individuals change over time. However, it is critical that we accurately take stock of what we know now to prepare for future comparisons.

2. Parental Attitudes

For some time, observers have been warning that societal trends in Japan such as the aging society, nuclear families, information revolution, and decline in employment security would make it harder for children to become independent from their parents (e.g., Yamada 1999). The JLSCP survey asked parents, "Are you anxious about whether your child will be independent by the time they reach adulthood?" 51.2 percent of parents said they were anxious. Figure 1 shows how parental concern varies towards sons and daughters.

The first thing we see is that roughly half of the parents are anxious regardless of the age of their children. Concern does not fall as the children grow older—parents' concerns over children

achieving independence are still high even when students enter middle and high school. The second thing is that parents are more worried about sons than daughters. This discrepancy may be due to girls generally maturing faster than boys or it may reflect higher expectations placed on boys. That so many parents are uneasy about their children becoming self-reliant reflects the situation of parent-child relations in Japan today.

What else are parents concerned about? The survey provided a list of 37 potential sources of concern or frustration, and parents were asked to mark all that applied to them. The results are shown in Table 1. The most common choice was "tidiness, putting things away," selected by 57.1 percent of respondents. "Relationships with friends" was the second most common choice among parents of elementary students, while "cell and smart phone use" was a close second for parents of senior high school students. These choices indicate that parents are concerned about their children's overall daily lives besides education. However, parents of middle school and high school students also frequently selected items related to academic performance such as "school grades" and "career track, school selection," showing that parents concerns shift as their children age.

As we follow families in future surveys, we will learn what reduces parental concern over specific issues. For example, if parents report lower levels of worry about childrearing supports and education at home, we may be able to identify interventions that eased those concerns, information that would be of great benefit to us.

3. Children's Lifestyles

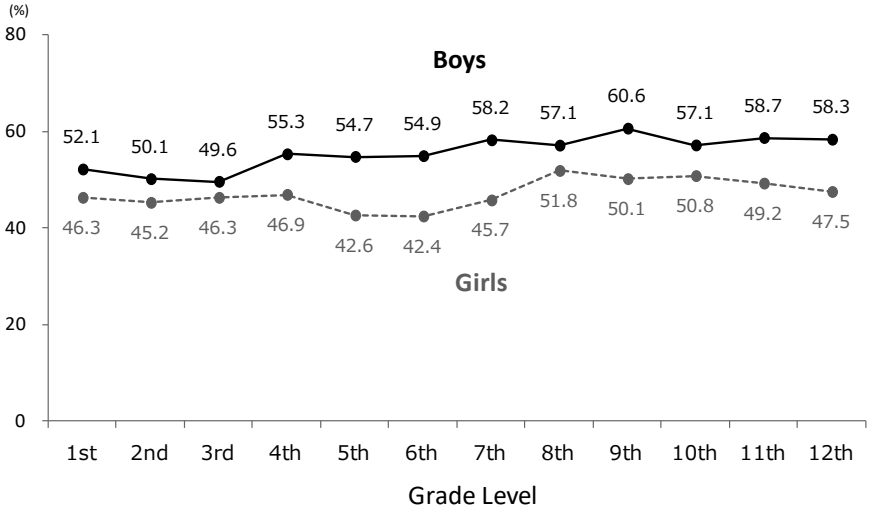
Next, we turn to results to questions on children's daily routines, which raise several critical points to consider. First, children are very busy. As they grow older, children spend more time studying and consuming media and less time sleeping. 77.8 percent of middle school students and 80.5 percent of high school students selected "my daily life is busy." Since the mid-2000s, when a decline in students' academic performance became a social problem in Japan, the Ministry of Education, Culture, Sports, Science and Technology has increased its efforts to reverse the decline. These efforts have had some success, but they may lose ground if students feel more pressed for time.

The second important issue is children's beliefs in their own abilities. As children grow, they become less likely to report feeling "good" at something for various reasons and lose self-confidence. One might see this change as unsurprising, but it presumably has a negative effect on adolescents' identity formation.

Third, there is a gender gap in several areas. Compared to girls, it seems that boys mature slowly. Girls frequently help with housework and interact more with other people, having higher exposure to social and emotional experiences.

The fourth concern is the income gap between

Figure 1. Parental levels of concern over children achieving independenceby grade and gender



*Rate is the total responding "very concerned" or "somewhat concerned."

Table 1. What parents worry about most by children's age group (%)

	All ages		Grades 1–3		Grades 4–6		Grades 7–9		Grades 10–12	
①	Tidiness, putting things away	57.1	Tidiness, putting things away	58.3	Tidiness, putting things away	59.7	Tidiness, putting things away	57.9	Tidiness, putting things away	52.4
②	Study habits	39.2	Relationships with friends	47.5	Relationships with friends	42.3	School grades	45.7	Cell and smart phone use	52.0
③	Relationships with friends	38.3	Study habits	40.4	Study habits	41.0	Career track, school selection	43.6	Career track, school selection	51.5
④	Family financial state	34.7	Homework, preparation, and review	35.5	Gaming style	36.8	Study habits	42.3	Family financial state	37.4
⑤	Homework, preparation, and review	31.0	Emotional growth and character	34.8	Emotional growth and character	33.2	Family financial state	37.3	School grades	35.7

* Columns represent a ranking of the five most prevalent parental concerns for each group. Percentages are of parents in each group who noted a particular worry.

families. Japan has a full-fledged system for supplemental education outside of school such as cram schools, but it is costly. Comparing families with a yearly income below five million yen to families with income of eight million yen or higher reveals that the wealthier families spend more than twice as much on education every month. In addition, how much parents encourage their children to study also varies widely by household income and their cultural environment.

For any of these issues, it is essential that we continuously follow how differences in families' situations affect children's development over time

4. Conclusion

In Japan today, there is a debate over how to revise the K-12 curriculum and reform the university entrance system. Both arguments involve expanding educational goals to enhance various skills as well as "knowledge." In today's rapidly changing society, children need to work collaboratively and to have a range of practical problem solving skills. So the idea is to shift from passive to active learning and to measure skills rather than knowledge.

In general, I agree with the direction of these reforms, but I do have some reservations. First, there is a risk that promoting the development of different skills will make children feel more pressed for time and may damage their self-confidence. Second, the shift may further advantage students from more affluent families that can help their children tackle the new challenges. We must ask if we can maintain a high level of equality in education going forward. Finally, given that our children are now struggling to become self-reliant, we need to strike a balance by helping them develop not just academically, but also socially and emotionally. These concerns are what motivate us to continue this survey and apply its results.

Acknowledgements

The Japanese Longitudinal Study of Children and Parents 2015 was a joint project of the Institute for Social Science at the University of Tokyo and the Children's Lifestyles and Learning research project at the Benesse Educational Research and Development Institute. Permission was granted for the use of the survey data.

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Children's Abilities and Parents' Socio-Economic Backgrounds

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1. Introduction

The extent to which people's non-cognitive abilities affect their employment outcomes (Heckman et al. 2006) has become a topic of interest in Japan. Recent empirical studies on the impact of non-cognitive abilities on socio-economic attainment include Ishida et al. (2016), Lee and Ohtake (2014), and Shiotani (2014). These studies laid the groundwork for others to explore the question: How much is social class mobility constrained due to a cycle in which parents' socio-economic backgrounds affect children's skills acquisition and consequently their socio-economic attainment? Recent studies in Japan on the influence of parents' socio-economic background on non-cognitive skills include Akabayashi and Shikishima (2016), a panel study of elementary and middle school students, and cross-sectional studies of elementary and middle school students by Shikishima et al. (2012), and high school students by Inoue and Nakanishi (2012).

The existing literature lacks studies that encompass students from elementary through high school. Also missing is research on how the relationship between students' ability and family background vary by grade level. This paper is a cross-sectional study of students from grades 1-12 that examines how the relationship between students' ability and parents' socio-economic background changes as students grow older.

2. Data, Methodology, and Model

The data used in this analysis are taken from the Japanese Longitudinal Study of Children and Parents 2015 (the 2015 JLSCP), a joint survey conducted by the Institute of Social Science, University of Tokyo, and the Benesse Educational Research and Development Institute as part of the Children's Life and Learning Research Project. Questionnaires were sent to 21,569 parents of children in grades 1-12 and 16,776 responses were collected. Responses from 13,302 parents are used in this analysis.

The variables assessed here, 1) factual knowledge and specific techniques; 2) skills of critical thinking, judgement, expression, etc.; and 3) readiness for learning humanities proactivity, respect for diversity, partnership, etc. are based in part on the "three elements of competency" which are part of the framework used in the OECD Education 2030 recommendations (MEXT 2015). In total, nine items from the 2015 JLSCP are used. The variable "*knowledge/techniques*" combines responses to questions on sports and physical activity and memorization. The variable "*critical thinking/judgment/expression*" combines responses regarding logical reasoning, original ideas, and ability to present ideas.[1] Finally, the variable "*indepen-*

[1] The wording on the logical reasoning item in the questionnaire for students in grades 1-3 is slightly different than the questionnaire for older students. For younger students, the item states "Thinks in a reasonable way." For all other students, the item is "Thinks logically (in a reasonable way)."

dence/diversity/cooperation/leadership" combines answers to items on autonomy, openness to other viewpoints, ability to get along with many types of people, and leadership.

The nine items in the survey ask parents to rate their children's abilities as "very strong," "somewhat strong," "somewhat weak," "very weak," or "don't know." Parents answering "don't know" are excluded from the analysis. The responses "very strong" or "somewhat strong" are combined into a single "strong" group and the "very weak" and "somewhat weak" are combined into one "weak" group.

Parents' socio-economic background is measured using mothers' and fathers' education level (dummy variables of associate degree or higher) and household income in the previous year, measured in million yen intervals. To examine whether the effects of parents' socio-economic background on their children's abilities varies across grade levels, parents were divided by grade level into four groups—lower elementary (grades 1-3), upper elementary (4-6), middle (7-9) and high school (10-12).

In this analysis, we do not look at children's abilities as a whole but rather use combinations of questions and answers to discern patterned variations in their abilities and how a family's socioeconomic background influences these abilities. The object of this analysis is not to ask if overall ability is high or low but to see what type of child parents are likely to raise given family background.

The analysis was conducted using Stata LCA Plugin version 1.2 (2015). Homogeneity of latent structures across groups is assumed and a latent class multinomial logit model is used.

3. Analysis

3.1 Children's Grade Level and Ability

In this section, we introduce latent class proportions and conditional response probabilities. Based on goodness of fit indicators and interpretability, we used an 8-class model. Table 1 shows each latent class configuration by group and its conditional response probabilities (simultaneous estimation of covariance is discussed below). Each class is interpreted as follows.

Class 1: Weak overall. The conditional response probability for "memorization" is 50 percent or higher, but weak for other items in general.

Class 2: Quiet and cooperative. Weak in logical reasoning, original ideas, expression, and leadership, but strong in openness to other viewpoints, getting along with many types of people, and cooperation. Unlikely to seek attention.

Class 3: Better with people than concepts. Weak at logical reasoning and abstract thought but strong in expression, getting along with others, and lead-

Table 1. 8-class model latent class proportions and conditional response probabilities

	Class1	Class2	Class3	Class4	Class5	Class6	Class7	Class8
	Weak overall	Quiet, cooperative	Better with people than concepts	Mid-range mix	Studious, thoughtful	Skilled follower	Friendly teammate	Strong overall
Class proportion								
Lower elementary	.042	.023	.182	.237	.069	.066	.138	.244
Upper elementary	.070	.071	.195	.142	.070	.090	.130	.232
Middle	.105	.116	.166	.065	.095	.083	.136	.234
High	.096	.180	.127	.033	.150	.047	.113	.253
Conditional response probability								
Sports	.255	.671	.865	.628	.517	.744	.707	.785
Memorization	.578	.418	.530	.636	.905	.934	.308	.878
Logical	.168	.245	.117	.116	.993	.392	.000	.865
Original ideas	.232	.258	.544	.803	.540	.004	.079	.766
Expression	.099	.170	.757	.347	.311	.489	.072	.918
Autonomy	.205	.675	.778	.643	.773	.320	.139	.953
Open to other views	.195	.792	.630	.488	.727	.648	.175	.924
Friendly towards others	.128	.835	.971	.771	.551	.893	.746	.969
Leader	.006	.087	.962	.127	.147	.441	.162	.893

note: n=13,302, df=1947, loglikelihood=-67104.3

Table 2. Childrens' abilities--Multinomial

	Base category: Class 8 (Strong overall)	Class1 Weak overall				Class2 Quiet, cooperative				Class3 Better with people than concepts			
School level		B		SE	exp(B)	B		SE	exp(B)	B		SE	exp(B)
Lower elementary	(constant)	−.300		.456	.741	−5.629	*	2.187	.004	.491	*	.202	1.633
	Female	−.137		.262	.872	3.864		2.036	47.672	.060		.143	1.062
	Mother college graduate	−.009		.307	.991	.279		.668	1.322	−.431	**	.153	.650
	Father college graduate	.466		.293	1.594	−.337		.608	.714	−.663	**	.158	.515
	Household income	−.266	**	.075	.767	.007		.057	1.007	−.029		.022	.971
Upper elementary	(constant)	−.270		.313	.763	−.951	*	.407	.386	.496	*	.213	1.642
	Female	−.006		.216	.994	.837	*	.337	2.308	−.262		.152	.769
	Mother college graduate	−.403		.231	.668	−.772	*	.312	.462	−.470	**	.166	.625
	Father college graduate	−.238		.239	.788	−.272		.318	.762	−.622	**	.168	.537
	Household income	−.079	*	.037	.924	−.022		.040	.978	.011		.020	1.011
Middle	(constant)	−.209		.248	.811	−.769	*	.338	.463	.182		.214	1.200
	Female	.288		.175	1.334	.790	**	.237	2.204	.101		.156	1.107
	Mother college graduate	−.763	**	.185	.466	−.151		.221	.860	−.295		.165	.744
	Father college graduate	−.075		.188	.928	−.270		.219	.763	−.303		.166	.739
	Household income	−.042		.026	.959	−.021		.031	.979	−.033		.023	.967
High	(constant)	.268		.266	1.307	.193		.234	1.213	−.033		.240	.968
	Female	−.087		.187	.917	.058		.173	1.060	−.086		.178	.918
	Mother college graduate	.093		.203	1.097	−.293		.174	.746	−.040		.190	.961
	Father college graduate	−.394		.206	.675	.046		.179	1.047	−.493	*	.194	.611
	Household income	−.138	**	.031	.871	−.052	*	.024	.949	−.040		.024	.961

ership. Not shy.

Class 4: Mid-range mix. Strong at original ideas, and getting along with others, but weak at logical reasoning, openness to other viewpoints and leadership. In other words, good at the easier aspects of reasoning and relationships but not the more difficult aspects.

Class 5: Studious and thoughtful. Weak at expression, leadership, and, in general standing out, but strong academically, and in logical reasoning as well as exercising autonomy and openness to other viewpoints.

Class 6: Skilled follower. Strong at sports, academic work, and getting along with others but weak at critical thinking and exercising autonomy.

Class 7: Friendly teammate. Weak at most things, but strong in sports and getting along with different types of people.

Class 8: Strong overall. Good in all categories.

Looking at differences in class proportions reveals that proportions for students in class 7 and class 8 are relatively stable across all grade levels. On the other hand, grade level differences are found for students in classes 1-6. The relationship is not a simple linear one, but generally the proportions for classes 1, 2, and 5 increase as grade levels increase. For classes 3, 4, and 6, the reverse is true—proportions fall as children grow older.

Children in classes 1, 2, and 5 share the traits of introverts—quiet, weak at self-expression and leadership. These traits become increasingly common as they progress through middle and high school while the proportion of students who are weak at logical reasoning declines.

Performing a latent class analysis of students' abilities identifies these eight different groups. Although the proportions of students in class 7 (friendly teammate) and class 8 (strong overall) do not vary across grade levels, there is a pattern of grade-level variation for the other classes.

3.2 Effects of Parents' Socioeconomic Background on Children's Abilities

Given these eight groups of student abilities (latent classes), are there differences related to parents' socio-economic backgrounds? This section examines how much the likelihood of membership in each latent class varies with parents' education and income. Table 2 presents the latent class multinomial logit regression model with class 8 as the base category and shows the likelihood of membership in each latent class by sex, parents' education, and household income. Table 3 shows the mean value of the independent vari-

logit latent class regression model

Class4 Mid-range mix				Class5 Studious, thoughtful				Class6 Skilled follower				Class7 Friendly teammate			
B		SE	exp(B)	B		SE	exp(B)	B		SE	exp(B)	B		SE	exp(B)
1.090	**	.181	2.974	−1.655	**	.445	.191	−.823	*	.411	.439	.534	*	.212	1.706
−.336	**	.129	.715	.044		.213	1.045	−.641	*	.281	.527	−.086		.146	.918
−.218		.137	.804	.468		.291	1.597	.312		.305	1.365	−.948	**	.159	.387
−.132		.138	.877	.261		.254	1.299	.176		.270	1.193	−.347	*	.159	.707
−.110	**	.021	.896	−.022		.029	.979	−.078	*	.034	.925	−.051	*	.023	.950
.238		.242	1.269	−.626	*	.316	.535	−.539		.292	.583	.621	**	.235	1.861
−.185		.177	.831	.078		.225	1.082	−.270		.216	.763	−.217		.173	.805
.053		.195	1.054	.007		.242	1.007	−.322		.240	.725	−.391	*	.179	.676
−.517	**	.191	.596	−.233		.241	.792	.357		.263	1.429	−.522	**	.189	.594
−.053	*	.027	.948	−.067	*	.033	.935	−.041		.029	.959	−.085	**	.030	.919
−.751	*	.377	.472	−1.075	**	.271	.341	−1.363	**	.315	.256	.684	**	.224	1.982
−.409		.333	.664	.228		.193	1.256	−.428		.253	.652	−.363	*	.166	.696
−.150		.292	.861	.076		.208	1.079	.044		.255	1.045	−.403	*	.173	.668
−.287		.299	.750	.121		.207	1.129	.392		.266	1.480	−.121		.176	.886
−.014		.039	.986	−.009		.026	.991	.030		.027	1.030	−.112	**	.029	.894
−1.855	**	.685	.157	.186		.216	1.204	−1.138	*	.484	.320	−.029		.241	.971
.502		.500	1.653	−.505	**	.161	.603	−.504		.393	.604	−.357	*	.182	.700
−.202		.462	.817	−.071		.173	.932	−.254		.390	.776	−.342		.191	.711
.021		.486	1.022	−.089		.176	.915	−.112		.396	.894	−.409	*	.199	.665
−.044		.066	.957	−.047	*	.022	.954	−.012		.042	.988	−.023		.023	.977

Table 3. Mean values of gender and parent socioeconomic background by class

		Class1 Weak overall	Class2 Quiet, cooperative	Class3 Better with people than concepts	Class4 Mid-range mix	Class5 Studious, thoughtful	Class6 Skilled follower	Class7 Friendly teammate	Class8 Strong overall
Lower elementary	Female	.456	1.00	.531	.435	.555	.304	.498	.512
	Mother college graduate	.706	.804	.514	.583	.813	.828	.411	.701
	Father college graduate	.647	.609	.393	.519	.727	.730	.442	.646
	Household income	5.22	8.45	6.42	6.10	7.43	6.84	6.32	7.44
	n	136	46	735	905	256	204	548	972
Upper elementary	Female	.570	.783	.474	.475	.563	.429	.469	.526
	Mother college graduate	.533	.349	.492	.636	.651	.643	.493	.688
	Father college graduate	.533	.493	.429	.487	.560	.731	.408	.655
	Household income	6.54	6.91	7.12	6.67	6.76	7.22	6.14	7.59
	n	214	152	667	423	252	308	446	756
Middle	Female	.551	.784	.512	.344	.565	.343	.359	.494
	Mother college graduate	.412	.549	.510	.571	.665	.690	.466	.635
	Father college graduate	.484	.483	.455	.479	.624	.749	.473	.603
	Household income	6.93	7.16	6.86	7.15	7.68	8.54	6.31	7.74
	n	345	348	576	163	340	239	457	780
High	Female	.505	.539	.522	.646	.401	.407	.415	.522
	Mother college graduate	.560	.539	.550	.563	.571	.523	.464	.619
	Father college graduate	.457	.583	.464	.646	.563	.570	.473	.630
	Household income	6.61	7.70	7.53	7.93	7.70	8.03	7.79	8.49
	n	291	568	418	48	496	86	330	797

ables for each class after assigning an optimal class to each case.

Statistically significant gender effects on membership likelihood are found for lower elementary students in classes 4 and 6, upper elementary students in class 2, middle school students in classes 2 and 7, and high school students in classes 5 and 7. The direction of the effects and which classes had those effects varies. Despite these variations, the results confirm that gender differences exist from elementary to high school.

Turning to parents' socio-economic status, parents' educational backgrounds have an effect on lower elementary students in classes 3 and 7 while household income has an effect on classes 1, 4, 6 and 7. For upper elementary students, parents' education has an effect in classes 2, 3, 4, and 7, whereas household income has an effect in classes 1, 4, 5, and 7. Among middle school students, parents' education affects members of

classes 1 and 7, while household income affects only class 7.

Parents' education levels have an effect on high school students in classes 3 and 7 while household income has an effect in classes 1, 2, and 5. In short, the effects of parents' socio-economic background are evident at all grade levels. Because class 8, children good at everything, is the base category, all of these effects are negative. The higher parents' socio-economic status is, the more likely their child will be in class 8. The impact of socio-economic status is apparent at all grade levels not only for class 8, but also for classes 1 and 7.

These results confirm that parents' socio-economic background affects their children's abilities from elementary to high school. Among students in class 1 (weak overall), class 7 (friendly teammate), and class 8 (strong overall), the effect extends continuously across grades. In the other classes we do not see the same broad effect over the 12-year span, but we can see some variation across shorter spans in socio-economic background and ability.

4. Conclusion

This paper has discussed how children's abilities change according to their grade level and how the relationship between abilities and parents' socio-economic background varies by grade level. After identifying eight latent classes in the skill sets of children, characteristics of the members of each class are compared. In some groups proportions changed by grade level, while others underwent little change. The effects of parents' socio-economic background on children's abilities persist throughout their school years. We can see the way that the influence of family background extends continually across grades and also see how the connection between socio-economic status and ability varies to some extent by academic year.

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Factors Affecting the Creation and Alteration of Family Rules for Children

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1. Introduction

The rules parents set for their children can be viewed as a contract that serves as one means to the end of imposing limits on children's behavior and managing the everyday needs of children. The values and behaviors parents want children to adopt and practice daily are embedded in the rules they set. The nature of these rules and how strictly they are enforced shapes the parent-child relationship and how children are raised. Setting family rules is therefore a crucial step in preparing children to become independent.

Rules do not apply only to the parent-child relationship, but the underpinning of those rules is linked to the quality of their interpersonal relationship (Kataoka and Yamazaki 1995). In other words, the health of the parent-child relationship affects the existence or absence of family rules. On the other hand, parents may avoid making rules the heart of their childrearing and opt instead to trust their children to act independently.

If we look for the reasons why parents create family rules or not, in addition to their parenting philosophy, likely candidates include parents' education level, employment, and other determinants of social class. Characteristics of children that may affect the setting of family rules include their gender, academic performance, and general demeanor.

Of course, one variable that has more impact than any of the above on the setting of strict rules is the child's own development. As children mature, their attitudes towards life become more ingrained (Tonai 2010). In addition, how children perceive "obligations" changes as they grow older (Yamagishi 2007). For example, while young children may give top priority to meeting obligations to their parents, once they reach middle school, they may see commitments to their friends as more important. How children respond to conflicting commitments changes over time. Similarly, which family rules are in place and how closely they are followed changes as children mature. The research project introduced below takes into account these changes as it seeks to uncover the mechanisms that drive the creation of family rules by clarifying what types of households and what kinds of children have family rules.

2. Data and Methods

The Japanese Longitudinal Study of Children and Parents (JLSCP) is the source of the data analyzed below. Children and parents were given different questionnaires that had some questions in common. Follow-up surveys are planned for this panel study, but this analysis is based only on the first round of responses collected in 2015.

One of the features of the JLSCP is a high number of questions concerning time use and daily routines. The answers to these questions are suitable for examining the mechanisms by which family rules are established. Items used from the parent surveys are: "family rules in effect," "mother's education level," "mother's employment status,"

and "method for deciding how to discipline." Items from the children surveys are: "time use," "how often I waste money," "how often I help at home," "school level" (upper elementary, middle, high), "gender," and "academic performance" (higher than average, average, below average). The only item used from both surveys is "how I view parent involvement in my family."

Whether family rules are in effect or not is based on responses to questions on five topics: "time watching TV or gaming" (TV/Games), "time using cell phone" (Cell phone use), "time studying" (Study), "spending money" (Spending), and "how often I help at home" (Helping at home). The variable "rules in effect" is a dummy variable set equal to 1 if respondents report having rules in these five areas, and each is analyzed as a dependent variable. "Mother's education level" is a dummy variable set equal to 1 if mother is a college or university graduate. "Mother's employment status" is one of three categories—full-time, part-time, or not employed. Full-time is the base category.

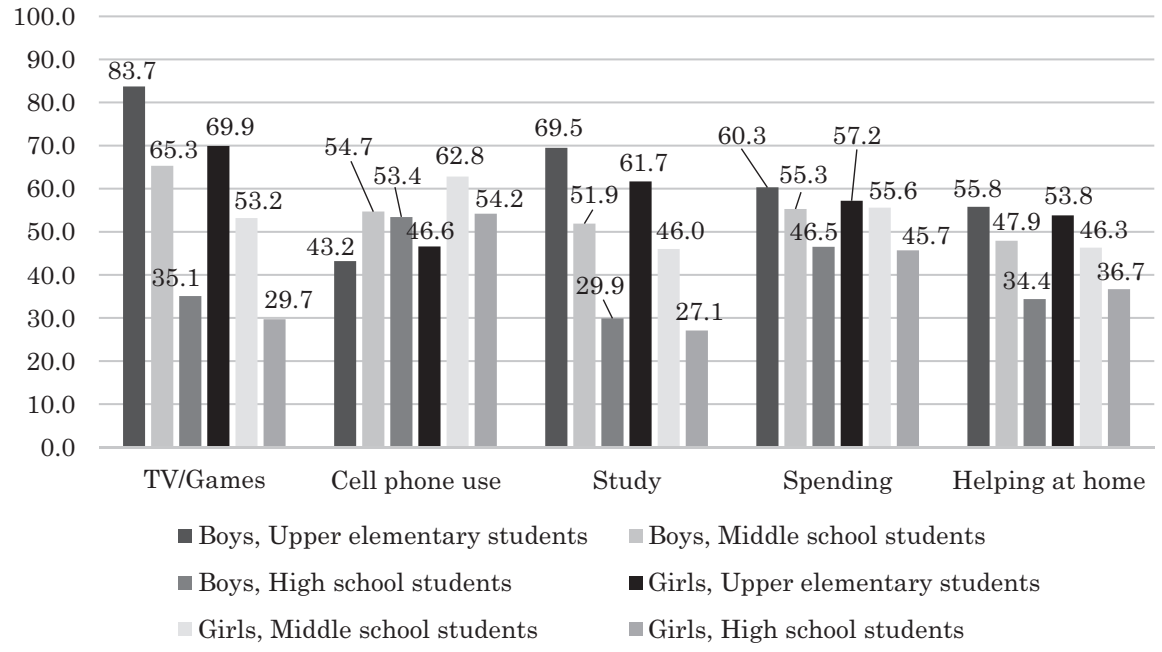
The variable "method for deciding how to discipline" is a dummy variable equal to 1 if the response is "both parents consider how to discipline and educate." "Time use" is calculated by converting the responses to the aforementioned questions on time spent watching TV, gaming, using a cell phone or other device, and studying into units of time. "How often I waste money" has four possible responses ranging from "never" to "often." These four responses are used without modification. "How often I help at home" is the combined score from questions about six household tasks.[1]

For "how parents and children view parents' involvement," principal component analysis was applied to parents' responses. The three axes that express the parenting style axis—the "parent" axis (parent-centered), "child" axis (child-centered), and "parent-child" axis (falls between "parent-centered" and "child-centered") are extracted and analyzed using multivariate logistic regression analysis.

3. Results

Figure 1 shows the percentage of children who have family rules about how they spend time, use money, and do chores. For each item, the first three bars are boys and the rest are girls. Upper elementary students are to the left (the darkest bars), middle school students in the middle, and

Figure 1. Percentage of children with family rules by school level and gender



[1] The six tasks are "set and clear the table," "clean," "cook," "take out the trash," "shopping," and "laundry." Each item has four possible responses and scores: "never" = 0, "not often" = 1, "sometimes" = 3, and "often" = 5. The combined score for all six tasks is used.

high school students on the right.[2] The largest gender differences are for rules on time spent watching television, gaming, and studying. Rules on use of mobile devices tend to be more common for students in middle school than in elementary or high school, but the percentage among female middle school students is especially high. The other clear trend is that children are less likely to have rules as they progress through school.

Given these changes, multivariate logistic regression analyses were performed for each rule with the variables of school level and gender. Due to space limitations, the analysis results are not presented in full here, but Table 1 shows the results for each independent variable.

Looking at what boys and girls had in common, mothers' education level was not statistically significant. The results also show that rules are easier to establish when parents cooperate. Elementary and high school students spend a lot of time on mobile devices, and among boys and girls who report often wasting money, there is a statistically significant association with having family rules. In addition, among children who frequently help around the house, regardless of their school level, there is a statistically significant positive association with having family rules. There is also a greater likelihood of having family rules when the parenting style is either parent-centered or a blend of parent-centered and child-centered. Rules are less common in child-centered parenting which prioritizes children's independence.

4. Discussion

Among the results of this study, three findings are especially important. First, there is a close connection between rule setting and communication between spouses and between parents and children. Rules are easier to establish when spouses jointly decide on what the rules and the consequences of breaking them should be. Moreover, rules are also easier to make when the parental involvement axis is either "parent" or "parent-child." Based on these results, the series of processes involved in setting family rules and deciding whether to uphold them is more than simply imposing discipline or a means of managing daily tasks. Instead, they comprise a way for spouses, parents, and children to communicate.

The second finding indicates support for previous

Table 1. Associations between having family rules and independent variables

		Results	
		Boys	Girls
Mother's education level		No Association	
Mother's employment status		If mother is not employed, no rules for study time or helping at home. (elementary and high school)	If mother is not employed, no rules for cell phone use, study time, or helping at home. (elementary only)
Discipline style		Tendency to have rules when parents cooperate on discipline	
Time	TV/Games	Many hours and no rules (elementary and middle school)	No association
	Cell phone use	Many hours and rules set (elementary and middle school)	
	Study	Many hours and rules set (elementary and middle school)	No association
Frequency	Spending money	Frequency high and rules set (elementary and high school)	
	Helping at home	Frequency high and rules set	
Academic performance		No association	Grades are low and rules set (high school only)
Parenting style axis		"Parent" axis or "Parent-child" axis and tendency to have rules	

[2] Upper elementary students correspond to 4th -6th grade students, middle school students correspond to 7th -9th grade students, and high school students correspond to 10th -12th grade students in Japan.

studies that rules come and go as children mature. Because the data used in this study are from the same point in time, we cannot yet verify that the number of rules applied to individual children changes over time. Meanwhile, it is clear that the percentage of children with family rules varies across school levels. Changes are especially evident for rules regarding how children spend their time (watching television, gaming, studying), which suggests that as children's attitude towards life becomes more established, rules become less necessary.

The third result is that rule setting mechanisms vary by gender. Although there is a connection between time spent watching television and gaming and having rules among boys, there is no such connection for girls. Boys whose mothers are full-time housewives are less likely to have rules for helping at home than boys whose mothers are full-time employees. In contrast, among girls in middle and high school, there is no statistically significant association between mothers' employment status and rules for doing chores.

These findings suggest that parents decide whether or not to set rules based on how their children actually play and otherwise spend their time, which tends to vary by gender. The fact that sons of full-time housewives are less likely to have rules for helping at home suggests that children in families with a traditional gender-based division of labor are likely to be socialized to accept this division.

This study's attempt to identify the determinants of the establishment and modification of family rules governing children's behavior will be tested and expanded as more panel data tracing changes in individual families becomes available.

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How Well Do We Know Our Children?: The Connection Between Parenting Style and Understanding

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1. Introduction

How fully should parents understand their children? When gauging the quality of parent-child relationships, one could argue that the quality increases as understanding increases. On the other hand, it may be possible to know too much about a child. The pros and cons of parental understanding change as children grow. We can roughly divide parenting into two phases. The first phase, from birth to early elementary school, is primarily physical and emotional care. The second phase emphasizes education.

In the primary socialization process, parents focus on toilet training and other everyday skills and rules in addition to meeting the children's basic needs. As their children progress through elementary school, parents devote increasingly more time to the task of supporting children's formal education to help them prepare for the future.

Once children enter their teens, parents need to relinquish complete control and allow their children to develop self-reliance, albeit while keeping a watchful eye and imposing restrictions when called for.

The changing role of parents reflects changes in the closeness of parents and children. According to Watanabe (2014), parents of infants must provide constant, hands-on care while parents of adolescents become hands-off supporters to give teens the chance to develop their individuality.

If it is best for parents to give their children more autonomy, then, parents' confidence that they fully understand their offspring should fall as their children mature. Parents may see that giving up control means knowing less, but feel the benefits outweigh the costs.

From the standpoint of achieving self-reliance, therefore, it may be better for parents of teenagers and adults to feel they do not know everything about their children. The first task is to clarify which factors determine how completely parents believe they understand their children.

One can think of many things that may affect how well a parent understands a child, but I would like to focus on the parent-child relationship, especially parenting style. Generally, we would expect that the more involved parents are and the more frequent the contact between them and their children, the more likely they are to believe they understand their children. However, sometimes, even engaged parents can feel uncertain.

2. Two Sides to Parental Understanding of Children

For our purposes, measures of parental understanding include two aspects of children—their abilities and their feelings. Our analysis is primarily based on the survey responses of mothers. Each respondent was presented with a list of skills[1]

[1] Twenty items were listed in surveys for grades 1-3, 21 items for grades 4-6, and 22 items for grades 7-12.

and asked to rate their children's aptitude in each area by choosing from "strong," "weak," and "don't know." Parents who selected "don't know" more than once were labeled as "unaware (of child's abilities)." Parents were asked how much the statement, "I don't understand my child's feelings," applied to them. The four possible responses were "applies," "applies sometimes," "applies infrequently," and "does not apply." Parents who selected either of the first two responses were also classified as "unaware (of child's feelings)."

3. What Types of Parents Feel They Do Not Understand Their Children?

The first source of variation in mothers' understanding is the age of the children. As shown in Figure 1, mothers of first graders are the most uncertain about their children's abilities, with 44 percent responding "don't know" to one or more aptitude questions. The level of uncertainty is also high among parents of second graders.

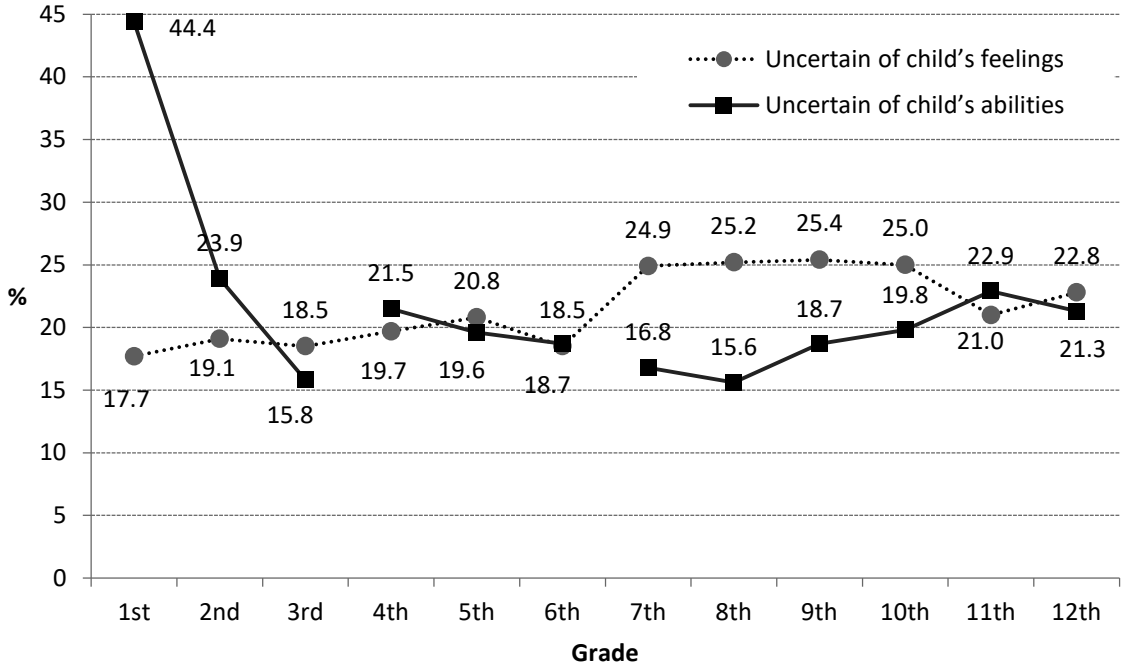
Youngest children are likely to have had the fewest opportunities to demonstrate their ability to perform various tasks, thus making it difficult for mothers to assess their skill levels. Mothers of children in middle school are the least likely to report not knowing how proficient their children are. Once children enter high school, mothers report more uncertainty.

This pattern is reversed for how confident mothers are about understanding their children's feelings. Roughly one out of four mothers of children in grades 7-10 answered "don't know," a higher ratio than among other mothers. Children who become rebellious in adolescence are presumably harder for mothers to understand.

Next, we look for connections between mothers' uncertainty about their children's abilities and feelings and their approach to parenting. Table 1 shows the results of a binomial logit analysis with mothers' understanding of children's abilities as the dependent variable. As noted above, the mothers of first grade students differ clearly from the mothers of older students. For that reason, the analysis includes only the mothers of students in second grade or older. Despite that, the model itself is not statistically significant for parents of second and third graders.

The results show that these variables do not explain how well mothers believe they know their children. Looking at the results for children in fourth grade or older, mothers with positive parental involvement—those who described their parenting style as "teaching" and "encouraging with praise"—are more likely to report knowing their children's abilities. Another finding is that mothers of children in grades 4-6, who talk with their children about planning for the future,

Figure 1. Mothers' uncertainty rates by child's grade level



report higher rates of understanding their children. Our analysis also shows that families' socioeconomic status has very little effect on mothers' awareness of their children's emotional state and abilities.

Turning from skill sets to feelings, Table 2 presents results from the analysis of parental awareness of children's feelings. Unlike the results shown in Table 1, here we find that the only statistically significant result is for parents of second and third graders who describe their parenting style as "teaching." For children in grades 4 and higher, parents who see themselves as "teaching" are no more likely to understand their children's feelings than other parents.

Table 2 also shows that the "praise and encourage" style of parenting has a positive effect on understanding while the "control and restrict" style has a negative effect for all grade levels. For children in grades 4-6, the "control and restrict" squared term is also significant.

Basically, mothers who practice "control and restrict" parenting are less likely to believe they understand their children's feelings, and the more controlling mothers are, the less aware they believe themselves to be. In regards to topics of conversation, mothers are more likely to feel they understand their children if they discuss immediate concerns such as school, friends, and grades with them than if they discuss events in the news.

The two aspects of children considered here—abilities and feelings—differ in the following ways. Mothers' understanding of both aspects is the result of everyday interactions with their children, but the relationship between time spent together and understanding level is probably stronger for feelings than for abilities.

Providing emotional support results in mothers being more confident they know how their children are feeling. As for ability levels, mothers that "praise and encourage" tend to report being more aware, an effect that is further amplified if they also take on the "teaching" role. Awareness of children's skill levels is, at least in part, a function of the number of opportunities children have to

Table 1. Factors affecting mothers' understanding of children's abilities

		Grades 2-3		Grades 4-6		Grades 7-9		Grades 10-12	
		B	S.E.	B	S.E.	B	S.E.	B	S.E.
Mother's education level	vs. High school or lower								
	Junior college, vocational school	-.064	.139	.048	.121	.227	.123	.418 ***	.112
	College, graduate school	.097	.153	-.155	.137	-.041	.148	.206	.143
Mother's employment status	vs. Not employed								
	Regular	.047	.161	.342 *	.155	.270	.171	.313	.167
	Full-time, non-regular	.418	.242	.079	.176	.137	.185	-.018	.168
	Part-time, non-regular	.005	.125	.081	.114	-.093	.133	-.206	.130
Annual household income (¥100,000)		-.001	.002	.000	.001	-.001	.002	.000	.001
Child gender	Male dummy	-.050	.108	-.087	.100	-.016	.106	-.153	.103
Parenting approach	Teach	.150	.089	.226 ***	.062	.314 ***	.060	.230 **	.085
(standardized)	Praise, encourage	.067	.062	.132 *	.055	.128 *	.059	.132 *	.055
	Control, restrict	.076	.058	.051	.051	.050	.055	.062	.054
	Teach squared	.022	.060	.015	.045	-.078	.041	-.034	.048
	Praise, encourage squared	.020	.046	-.022	.040	.044	.039	.050	.039
	Control, restrict squared	.002	.040	.000	.035	.033	.038	.017	.034
Child's misbehavior				.008	.017	.045 **	.017	-.018	.016
Topics discussed with child	School			.035	.090	.093	.105	.128	.104
	Friends			.010	.086	-.009	.099	.039	.097
	Grades			-.083	.068	.065	.087	-.065	.094
	Plans for the future			.150 **	.058	-.004	.071	.105	.087
	Current events			.097	.055	.015	.063	.113	.062
	LR chi square (d.f.)	17.12 (13)		65.13 (19)		77.55 (19)		117.22 (19)	
	sig.	.194		.000		.000		.000	
	McFadden R^2	.008		.023		.030		.042	
	N	2238		2879		2992		2706	

* p < 0.05, ** p < 0.01, *** p < 0.001

Table 2. Factors affecting mothers' understanding of children's feelings

		Grades 2-3		Grades 4-6		Grades 7-9		Grades 10-12	
		B	S.E.	B	S.E.	B	S.E.	B	S.E.
Mother's education level	vs. High school or lower								
	Junior college, vocational schoo	.020	.145	.263 *	.124	-.158	.112	.000	.117
	College, graduate school	.217	.164	.234	.144	-.140	.138	.010	.149
Mother's employment status	vs. Not employed								
	Regular	-.110	.175	.146	.157	-.103	.148	-.013	.158
	Full-time, non-regular	-.220	.226	.375	.191	-.227	.161	.161	.172
	Part-time, non-regular	-.051	.136	.180	.121	.046	.124	.041	.134
Annual household income (¥100,000)		.004	.002	.001	.002	.000	.001	.001	.001
Child gender	Male dummy	-.174	.116	.227 *	.106	.160	.095	.119	.106
Parenting approach	Teach	.239 *	.093	.090	.066	.087	.053	.060	.077
(standardized)	Praise, encourage	.339 ***	.069	.215 ***	.059	.332 ***	.054	.240 ***	.057
	Control, restrict	-.701 ***	.078	-.523 ***	.061	-.594 ***	.054	-.555 ***	.053
	Teach squared	-.074	.063	.022	.048	.011	.037	-.059	.045
	Praise, encourage squared	.075	.049	.000	.043	.020	.035	-.002	.040
	Control, restrict squared	-.082	.048	-.102 **	.037	-.055	.037	-.091 *	.035
Child's misbehavior				-.060 **	.017	-.078 ***	.015	-.093 ***	.017
Topics discussed with child	School			.207 *	.091	.235 *	.091	.110	.106
	Friends			.162	.089	.201 *	.088	.211 *	.100
	Grades			.248 ***	.070	.162 *	.077	.134	.094
	Plans for the future			-.081	.062	.064	.065	.052	.090
	Current events			.013	.059	-.010	.057	.077	.064
LR chi square (d.f.)		242.56 (13)		289.71 (19)		437.20 (19)		335.75 (19)	
sig.		.000		.000		.000		.000	
McFadden R^2		.112		.103		.130		.118	
N		2236		2858		2980		2700	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

demonstrate their skills. How these factors differ across grade levels is not all that clear, but it is likely that they basically coincide.

4. Uncertainty about Your Child and Parenting Problems

Thus far we have shown that mothers who report higher levels of awareness of their children's capabilities and feelings are more likely to have affirmative parenting styles. Those who report being less aware of their children's feelings are more likely to practice command and control parenting.

While our model assumes parental involvement with children determines how much parents feel they understand them, it is more likely that involvement with children and how much parents understand their children mutually influence one another. For example, control-based parenting may be a result as well as a cause of misunderstanding one's children. Once this dynamic emerges, it is not hard to imagine a vicious cycle of misunderstanding and resentment in the parent-child relationship.

Looking at current attitudes toward childrearing, one rarely sees endorsements of control-based parenting. Instead, parents are expected to place more importance on shaping the will of their children rather than imposing their own will and interacting with their children in a way that develops their independence. With this in mind, it is difficult to believe that mothers intentionally opt for control-based parenting based on their personal preferences.

Under what circumstances are these mothers raising their children? If we look at the types of worries and the levels of anxiety they are experiencing, mothers who feel they do not understand their children have more worries overall. Not only are they concerned about their children, they also report being worried about themselves.

Mothers who do not understand their children's feelings tend to believe that they are not manag-

ing their own lives well. Their sense of disappointment or failure is bound to be reflected in their relationships with their children. In these cases, telling mothers who are already stretched to the limit that control-based parenting is not the best method will only add to their distress.

What can be done to avoid this outcome? Through our longitudinal survey, we will closely monitor how parental involvement changes over time. With any luck we will find some hints as to how parents can improve their situation, the type of discovery that motivates us to continue to collect and analyze data for years to come.

Acknowledgement
The Japanese Longitudinal Study of Children and Parents 2015 was a joint project of the Institute for Social Science at the University of Tokyo and the Children's Lifestyles and Learning research project at the Benesse Educational Research and Development Institute. Permission was granted for the use of the survey data.

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Understanding Parental Involvement in Children's Education

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1. Parenting and Child Learning

Broadly speaking, parental involvement in their children's education takes two forms—supporting and coaching. Supporters offer general encouragement and praise, and many studies have found that supporters have a positive effect on their children's academic achievement (see, for example, Benesse Educational Research and Development Institute 2009, 2010; Nishimura and Yagi 2016). Honda (2008) uses survey data to assess the impact of "coach-like" parents and finds that strict parental attitudes towards studying and personal habits (the first principal component; "zealous reinforcement of the importance of improving grades" had the highest load factor) were correlated with their children's grades.

Much research on parenting and children's learning has concluded that supporter-style parenting, i.e., encouraging and praising children, has a positive impact on children's learning. Other research, however, attributes the positive impact to parents' role in directly coaching their children. Exploring the possibility that coaching is more effective in enhancing children's learning than encouraging and praising, I challenge the validity of the link between supporter-style parenting and learning.

A different sort of problem in earlier studies, including those mentioned above, is the lack of clarity on whether parents or children are judging the nature of parental involvement. The fact that the two sides can have different views of the same relationship has received too little attention, a point also made by Harris (1998) and Pinker (2002).

In other words, researchers have implicitly assumed that parents and children agree on the nature of the family's parenting style. This presumption by researchers can affect their conclusions. In assessing parental involvement, there needs to be clarity on whether parents or children provide inputs.

2. The Goal of This Paper and Its Hypothesis

In light of these two problems in the existing literature, this paper has two goals. First, after explaining how supportive and coach-like parenting styles differ in practice, I describe how these parenting styles affect children's education.

Second, I evaluate how much overlap exists between parents' and children's assessments of parental involvement and then re-examine the connection between parenting styles and learning. The question of how many parents use both coach and supporter tactics, like the question of whether or not there is intergenerational agreement on parents' involvement, has major implications for our understanding of childhood education.

3. Data Sources

The data analyzed here are from the Japanese Longitudinal Study of Children and Parents 2015 (the 2015 JLSCP), which was jointly conducted in July and August 2015 by the Institute for Social

Science at the University of Tokyo and the Benesse Educational Research and Development Institute.

Questionnaires were sent to 16,065 families with students ranging from fourth graders to twelfth graders. Responses were received from 11,982 students and 12,069 parents. This paper looks at the subset of 10,810 families that submitted responses from mothers and children—3,644 families with upper elementary students, 3,704 middle school families, and 3,462 high school families.

4. Analysis

4.1 Parental involvement factor structure and parent-child perception types

A factor analysis of responses from children and parents to questions on parental involvement extracted two factors (I Coaches, II Supporters) with factor correlations of 0.449 for children and 0.237 for parents. These results indicate that the inter-correlation between the factors is not strong, but a moderatecorrelation does exist (see tables 1 and 2).

Next, combining positive and negative factor scores produces four types of involvement: mostly coach, coach and supporter, mostly supporter, and mostly uninvolved. Overall, 33.7 percent of children and 25.6 percent of parents indicated parents act as "coach and supporter."

Looking at differences across grade levels, chil-

Table 1. Children's views of parental involvement (factor analysis)

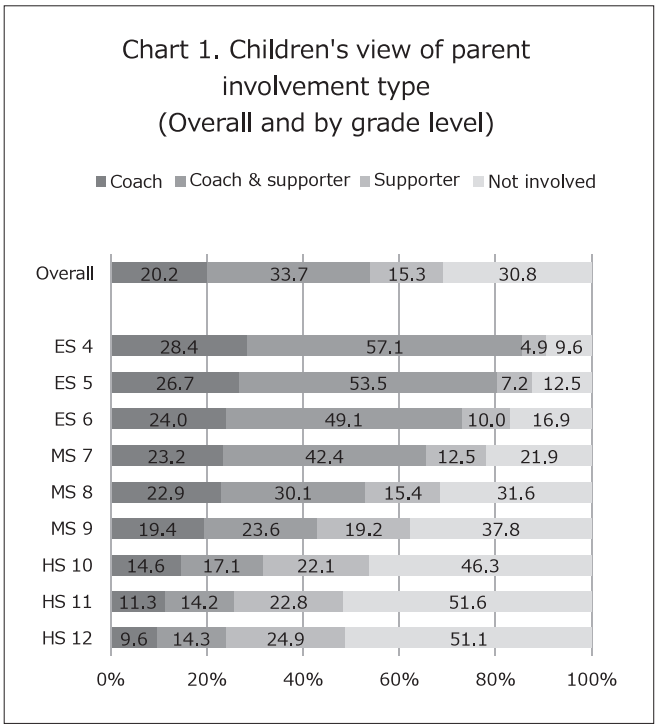
Parent actions	Coach	Supporter
Teaches how to approach an assignment	.979	-.051
Teaches how to do an assignment	.911	-.043
Shows what is interesting about an assignment	.632	.170
Offers encouragement after failure	-.017	.878
Encourages me to pursue my interests	-.034	.747
Praises me when I do well	.081	.727
Factor correlation matrices	Ⅰ	Ⅱ
Ⅰ	1.000	.449
Ⅱ	.449	1.000

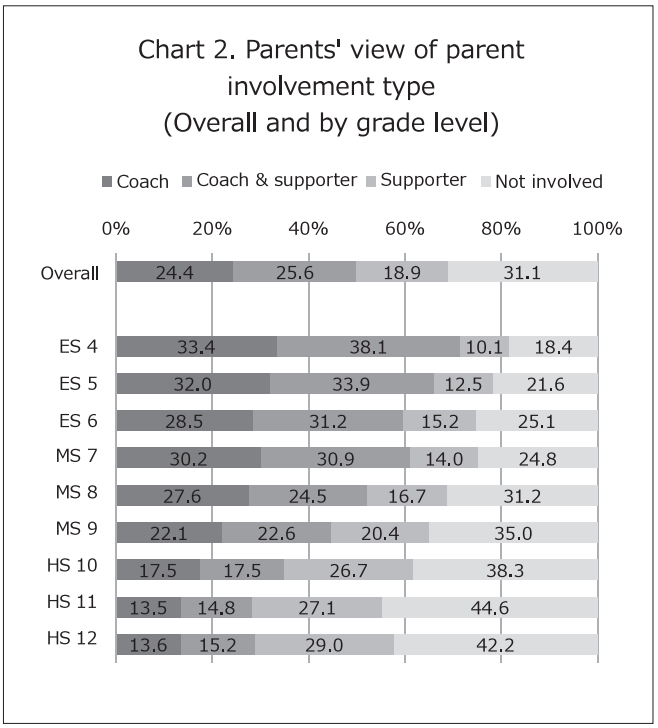
*Factor extraction method: Maximum likelihood; Rotation: Promax rotation.

Table 2. Parents' views of parental involvement (factor analysis)

Parent actions	Coach	Supporter
Teaches how to approach an assignment	.957	-.050
Teaches how to do an assignment	.809	-.039
Shows what is interesting about an assignment	.605	.134
Offers encouragement after failure	.011	.791
Encourages me to pursue my interests	.028	.667
Praises me when I do well	-.018	.582
Factor correlation matrices	Ⅰ	Ⅱ
Ⅰ	1.000	.237
Ⅱ	.237	1.000

*Factor extraction method: Maximum likelihood; Rotation: Promax rotation.





dren in grades 4 through 7 and their parents were most likely to choose "coach and supporter" while "mostly uninvolved" was the most popular response for children in grades 7 and higher and their parents (see charts 1 and 2).

4.2 Rate of concurrence between parents' and children's view of parental involvement

A simple cross-tabulation of responses regarding the four types of involvement mentioned above shows that parents and children are in agreement in only 48.2 percent of families (table 3). In short, parents and children characterize parental involvement differently in roughly half of all families.

Table 3. Parents' vs. children's perceptions of involvement type

		Children's views				Total
		Coach	Coach & Supporter	Supporter	Not involved	
Parents'views	Coach	9.0%	8.5%	1.5%	5.3%	24.4%
	Coach & Supporter	4.7%	15.5%	2.6%	2.9%	25.6%
	Supporter	1.6%	4.9%	6.7%	5.6%	18.9%
	Not involved	4.7%	4.9%	4.5%	17.0%	31.1%
	Total	20.2%	33.7%	15.3%	30.8%	100.0%

Although the majority of studies assume that parents and children see parental involvement the same way, it is clear that in reality this is true only in half of all families. The intergenerational perception gap is around half for students of all ages.

The highest level of parent-child agreement is found in families with students in seventh grade or elementary school ("coach and supporter" being the most common type). Among students in eighth grade or higher, "mostly uninvolved" has the highest ratio, a finding that fits with the overall trends described above in section 5-1.

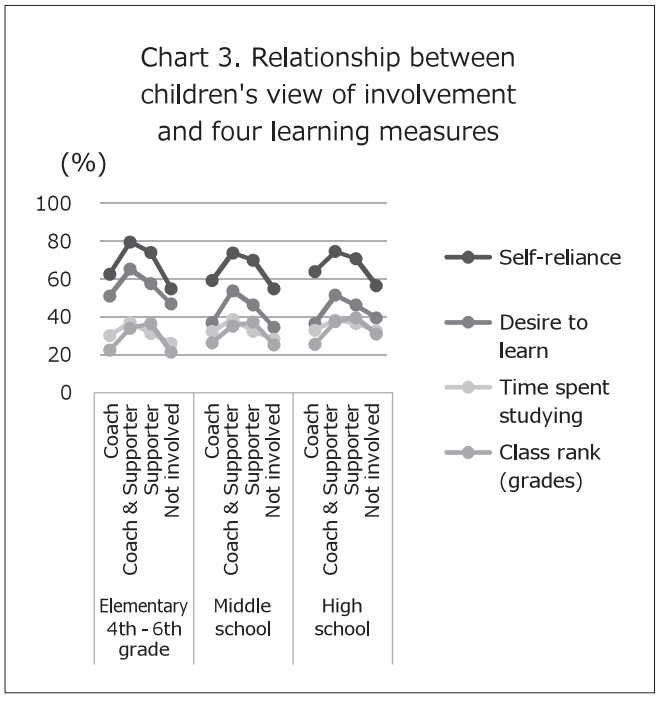
4.3 The relationship between perceptions of involvement and learning

How do different types of parental involvement relate to children's academic achievement? I verified how four measures of learning—grades (outcome), time spent studying (behavior), desire to learn (attitude), and self-reliance (attitude)—are correlated with parental involvement types (charts 3 and 4).

The highest affirmative rate was between the combined learning measures and "coach and supporter" involvement. "Mostly supporter" involvement also had a relatively high rate. On the other hand, "mostly coach" and "mostly uninvolved" rates were similarly low. In sum, the hybrid "coach and supporter" type of involvement is more positively correlated with student learning than any other type.

4.4 The relationship between parent-child consensus and learning

The next question is whether we can discern a pattern between student learning and the level of



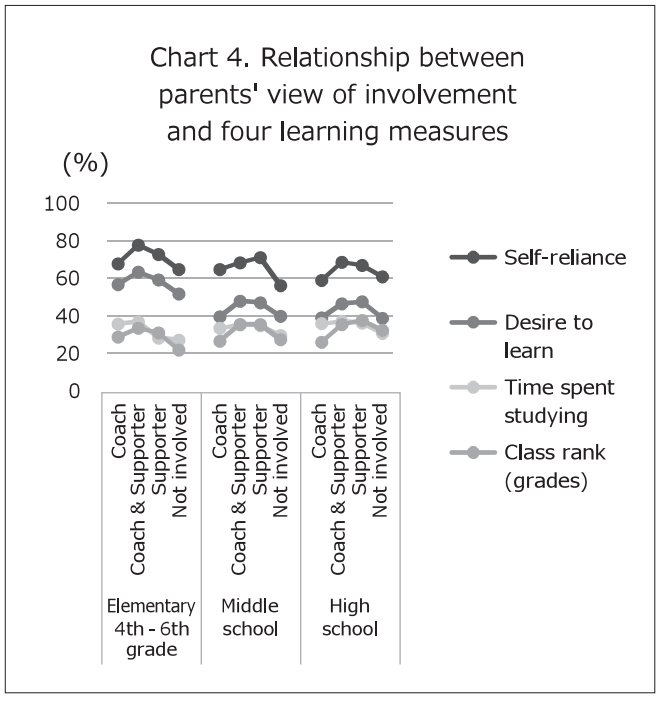


Table 4. Logistic regression analysis of middle school students' learning measures

Independent variables	Model I Objective variable: Class rank Upper rank 1; Middle or lower 0		Model II Objective variable: Time spent studying Upper rank 1; Middle or lower 0		Model III Objective variable: Interested in Yes 1; No 0		Model IV Objective variable: Self-reliant Yes 1; No 0	
	Coeff.	Odds ratio	Coeff.	Odds ratio	Coeff.	Odds ratio	Coeff.	Odds ratio
Control variables								
Male dummy	0.048	1.049	-0.221	0.802 **	-0.247	0.781 **	0.242	1.274 **
Father dummy	0.534	1.706 ***	0.134	1.143	-0.006	0.994	-0.201	0.818 *
Mother college grad dummy	0.365	1.441 ***	0.263	1.301 **	0.095	1.100	0.277	1.320 **
Parent-child consensus/non-consensus on "coach & supporter." Base: Excludes consensus on "coach & supporter."								
Coach & supporter consensus	0.659	1.933 ***	0.380	1.463 **	0.832	2.298 ***	0.903	2.467 ***
Coach & supporter--child only	0.335	1.399 **	0.341	1.407 **	0.653	1.921 ***	0.718	2.050 ***
Coach & supporter--parent only	0.166	1.180	0.157	1.170	0.072	1.075	0.053	1.055
Parent-child consensus/non-consensus on "supporter." Base: Excludes consensus on "supporter."								
Supporter consensus	0.755	2.128 ***	0.072	1.074	0.607	1.835 ***	0.727	2.069 ***
Supporter--child only	0.584	1.794 ***	0.078	1.081	0.387	1.472 **	0.496	1.641 ***
Supporter--parent only	0.277	1.319 *	0.279	1.322 *	0.149	1.160	0.408	1.503 **
Constant	-1.652	0.192 ***	-0.973	0.378 ***	-0.529	0.589 ***	0.046	1.047
Nagelkerke coeff. of determination		0.062		0.024		0.044		0.053
Goodness of fit (p value)		0.000		0.000		0.000		0.000
		3,088		3,050		3,117		3,113

parent-child agreement on the parent's type of involvement. Taking the four measures of learning as objective variables, the two types of involvement positively correlated with the highest scores were "coach and supporter" and "mostly supporter." Treating agreement/non-agreement as the explanatory variable, and using gender and parent education level as control variables, a logistic regression analysis produced the results shown in table 4.

Due to space limitations, only the results for middle school students are shown. The relationship between academic effort and perception of parental involvement is strongest when parent and child both select either "coach and supporter" or "mostly supporter," followed by these types being selected only by the child. The relationship was weakest when only the parent selected these types. Results for elementary students were similar, but the results for high school students were somewhat less clear.

5. Results and Implication

This analysis has produced two clear results. First, a constant ratio exists for the children of parents who act as both academic supporters and coaches, the hybrid style of involvement, showing a positive correlation with learning.

The results also show that supporter type involvement has a relatively positive relationship with learning. On the other hand, there is only a weak relationship between parents who act as coaches or are generally uninvolved and their children's academic effort.

The second key finding is that parents and children share the same view of parental involvement no more than half of the time. Therefore, the presumption of parent-child agreement built into earlier studies is simply invalid. In addition to the relationship between parental involvement and learning being clearest when both parents and children agree that parents are acting as coach and supporter or mostly supporter, academic effort is higher when only the children select one of these categories than when only the parents select them.

These findings have two implications for research on parenting and education. First, there is a modest correlation between supporter parenting and coach parenting. Also, because the relationship with children's learning is relatively strong, the two types should not be treated as totally distinct. The presumption for analysts going forward should be that the two parenting styles overlap. Second, even when their focus is parental involvement, researchers should pay more attention to children's views for the utterly simple reason that their education, not the parents' education, is what really concerns us.

Finally, I would like to offer a couple of practical suggestions on raising children. The strength of the two main conclusions of this paper is limited because they are based on cross-sectional data

from one point in time. The only way to reliably identify a cause-and-effect relationship between parenting styles and children's education is to follow individuals over time using panel data. If our conclusions remain intact as long-term data become available, then, it means that parents are faced with a tall order. Not only will parents need to switch between coaching and supporting, they will need to ensure that children recognize their parents' involvement type. Another finding of this analysis is a considerable decline in the percentage of parents acting as coaches and supporters once children are in high school. The level of parent-child consensus also drops. It may be that children shift their attention to other relationships at later stages of development. With reliable data, we can expect to learn more about the true nature, effects, and limits of parental involvement.

Acknowledgements

The Japanese Longitudinal Study of Children and Parents 2015 was a joint project of the Institute for Social Science at the University of Tokyo and the Children's Lifestyles and Learning research project at the Benesse Educational Research and Development Institute. Permission was granted for the use of the survey data.

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New Developments in Empirical Education Economics in Japan

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In economics, education is considered an investment in human capital formation. This framing is known as human capital theory. Investment is a dynamic process where current resources are sacrificed in order to gain more resources in the future. Becoming educated requires sacrificing time and other opportunity costs. From a societal standpoint, investing in education is meant to increase the productivity of workers (human capital) in the same way as investing in physical capital or stocks.

For education to function as human capital investment, it must generate future benefits. For example, if a college degree raises future labor productivity, then college graduates' incomes—a proxy indicator of productivity—should be higher than those with less formal education. Moreover, if education is effective, then we should be able to observe many favorable relationships between education and positive outcomes such as changes in school curricula and increased levels of academic achievement. Therefore, providing empirical evidence of the "effectiveness of education" is a core agenda of human capital theory.

Empirically assessing the effects of education is a primary mission of the field of education economics. A topic that has been widely researched is how various school environments affect academic achievement outcomes. Empirically evaluating hypotheses on how children are affected by teaching practices requires individual data. However, Japan's strict rules protecting personal information have largely kept researchers from accessing individual student data, and, as a result, empirical analysis in education economics in Japan lags far behind that of Western nations.

Recently, as the importance of evidence-based policy formation has gained wider recognition, there has been some gradual movement toward supporting quantitative research by giving researchers permission to use student data. For example, there has been more discussion on how to give researchers access to student scores on the National Academic Achievement Test which is administered yearly by the Ministry of Education, Culture, Sports, Science and Technology. The fact that education policymakers have begun to recognize the importance of evidence-based policymaking is a major step forward.

Having access to individual National Academic Achievement Test scores opens up multiple lines of research. For example, Tanaka and Ishizaki (2016) used individual National Academic Achievement Test scores of sixth grade students in a particular municipality to test if a causal relationship between language art activity in curricu-

la and Japanese language and math scores exists.

Their research has already found a positive relationship between various language art activities and academic achievement. Telling students at the start of a lesson what the goals of the lesson are, for example, has a positive effect on language and math scores. Tanaka and Ishizaki were also able to use the individual student data to show that the positive effects of language art activities are most evident among students who have low test scores. Detecting how the effects of teaching methods may vary for students with different achievement levels is only possible with access to individual test data, and this study is an example showing the importance to use individuals' data.

The results of tests by the Programme for International Student Assessment (PISA) and Trends in International Mathematics and Science Study (TIMSS) comprise the most important databases for cross-national comparisons in empirical education economics. Inoue and Tanaka (2016) show that students whose teachers have master's degrees in the natural sciences tend to be more proficient in science than the students of other teachers.

Recent developments in empirical analysis, including the use of econometric methods that emphasize causal inferences, have had a major impact on how educational effects are measured. We now have a variety of measurement methods at our disposal. In education as in other areas, the most convincing research designs for drawing causal inferences involve randomized trials. Unfortunately, in Japan, the use of randomized trials in education policy evaluation is all but unheard of.

To get around the obstacles to randomized trials in Japanese schools, Akabayashi Hideo of Keio University, Araki Hiroko of Kindai University, and I have partnered with Chance for Children, a nonprofit organization, to start a randomized trial of vouchers. The trial offers vouchers to students for tutoring classes. Although the scale of the study is rather small, eliminating various biases from the sample using the randomized research design, we found evidence that vouchers increase academic achievement. We can expect randomized studies of educational effects to be conducted on a larger scale in the future.

Causal inferences based on the analysis of detailed, individual-level data are crucial when designing evidence-based policies, and the same is true when assessing education policies. We can learn much from analyzing large, detailed data sets that have been compiled through governmental, non-governmental, and academic research. These resources contain evidence of the progress of natural experiments on how systems differ and evolve. We can look forward to many studies that take advantage of these sources.

When drawing causal inferences, using a robust research design such as randomized control trials to gauge educational effects is ever more important. Expanding randomized trials beyond pilot studies will make it possible to choose more effective education policies. The accumulation of reliable evidence is an essential part of making evidence-based policy formation possible. Collecting reliable evidence based on sound causal inferences is the mission of empirical researchers, and the importance of this mission in the economics of education is no small thing.

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Tanaka, Ryuichi and Issui Ishizaka. 2016. "Do teaching practices matter for students' academic achievement?" Presented at the Japanese Economic Association Autumn Conference, September 10, Tokyo.

Inoue, Atushi and Ryuichi Tanaka. 2016. "Rikei bun'ya no shūshi-gō o hoyū shi ta kyōin ga jidō seito no rikei kamoku no gakuryoku ni ataeru kōka ni tsuite" (Impact of teachers with science master's degrees on students' science achievement). Presented at the Japanese Economic Association Autumn Conference, September 10, Tokyo.

ISS Contemporary Japan Group at the Institute of Social Science, The University of Tokyo

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Kato Junko
(Professor of Political Science at the University of Tokyo)

October 27, 2016

The Politics of Tax Increases: Japan's Shōhizei Consumption Tax in Comparative Perspective

Why has Prime Minister Abe Shinzo repeatedly delayed increasing Japan's consumption tax rate even though it is much lower than in other countries? Why has the Japanese government accumulated the largest debt despite maintaining the lowest level of taxation among mature democracies? I will solve these puzzles by placing Japanese tax politics in comparative perspective. Japan is a critical case that embodies a path-dependency in tax politics. In most advanced democracies, the institutionalization of effective revenue raising during the period of high growth consolidated state funding capacity. Japan, however, failed to introduce effective revenue measures before the end of high growth and has therefore confronted strong opposition to tax increases. Extending further this implication from my previous work (Kato 2003), I will analyze the politics of shōhizei for the last three decades. Since the 1990s, Japan has experienced continuous changes in party politics, including the breakup of the predominant Liberal Democratic Party (LDP), the formation of the LDP-centered coalition government, and alterations in partisan rule. Nonetheless, Japanese tax politics has remained intact. This consequence will be explained by comparing Japan with other countries.

Michael Strausz

(Associate Professor of Political Science at Texas Christian University)

November 29, 2016

Help Wanted: Labor Shortages, an Aging Society, and Japan's Restrictive Immigration Policy

Japan's population is composed of an extremely small percentage of foreign residents when compared with other advanced industrialized countries. This is particularly puzzling when considering that Japan's population is rapidly declining and aging, and that Japan is facing some of the most intense labor shortages in the world. This presentation will put Japan's restrictive immigration policy in comparative perspective. Ultimately, I will explain Japan's restrictive immigration policy with reference to two key factors: the outcome of domestic political disputes between business and the government, and the nature of elite debates and disputes about the appropriate role for foreign residents in Japan.

Sanford Levinson

(Professor of Law and Government at the University of Texas at Austin)

December 16, 2016

The American Judicial System(s) as Part of the Political Process

Although political scientists have long emphasized the connection between courts (and, therefore "law") and politics, it is only in recent years that these connections have been assimilated into ordinary public discourse in the United States. A key issue in the recent election was dominance over the future of the United States Supreme Court. Controlling the Court, more than ever before, was seen as an linked to electoral success. Especially important, in this regard, is the fact of lifetime tenure coupled with the incentive to appoint relatively young justices. The overt politicization of the judiciary has become even more glaringly true with regard to the judges on state courts, which hear literally millions of more cases than do national courts. Most state judges are elected or otherwise politically accountable. The contrast with most other judicial systems in the world, including Japan's, is obvious. Whether reform is possible, assuming it is desirable, is doubtful, especially at the national level, because of the near impossibility of constitutional amendment.

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S. ウォルビー，H. ゴットフリート，K. ゴットシャル，
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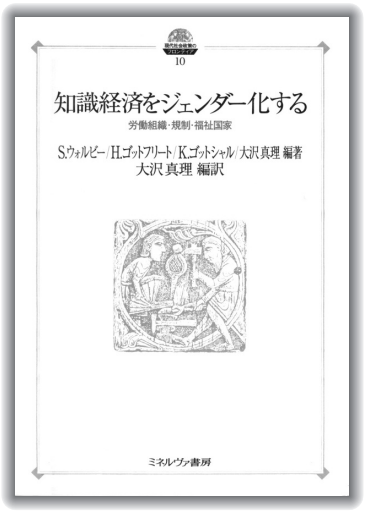

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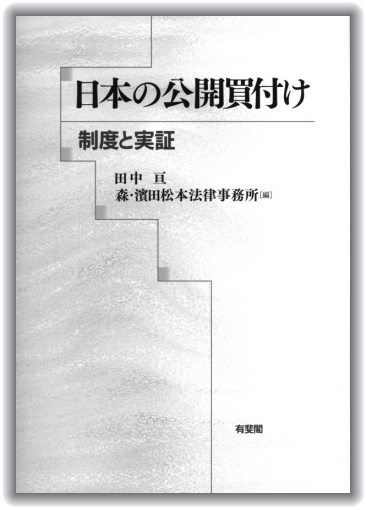

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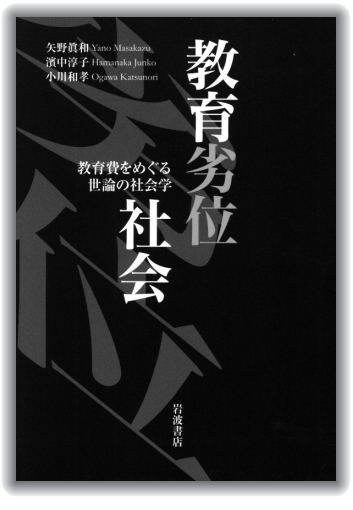
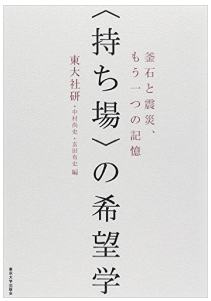


The Social Sciences of Hope in Kamaishi: How "Kibougaku" Was Applied to Disaster Work (Part 3)

NAKAMURA Naofumi and GENDA Yuji

Social Sciences of Hope, People in Charge



In this final report on our post-3/11 fieldwork in the Kamaishi region, we introduce one more product of our research team's efforts, *Social Sciences of Hope, People in Charge*. The book has fifteen chapters divided into three parts. In part one, the editors discuss problem setting and present an overview of the Kamaishi research project. Part two is a collection of essays, "Memories of Disaster: Oral Histories" by members of the *Kibougaku* research team who reflect on the oral histories they collected. In addition to the participants in the oral history project, our researchers also interviewed sixty-plus other residents. After sharing informant reports, researchers reassessed the oral histories and wrote up their views on the problems affecting Kamaishi.

Part three of the book features contributions by public officials from Kamaishi and Kitakyushu, a city that provided aid to Kamaishi, as well as managers from the Kamaishi iron works, part of the Nippon Steel and Sumitomo Metal Corporation. These local leaders shared their personal accounts of facing the destruction and horrifying loss of life. Their experiences and insights add greater dimension to this book of recollections. The bird's eye perspective of the disaster that public officials from Kamaishis and Kitakyushu struggled to attain (given that the oral histories were collected in an open-ended way without a specific focus, cognitive biases may need to be corrected) were revealing. Most important, the testimony of these people, who literally put their lives on the line of the recovery efforts, is immeasurably valuable for our understanding of the 3/11 tragedy.

People in Charge: Trust and a Shared Sense of Hope

The keyword of this book, mochiba (持ち場, the situation "in charge"), is also featured in its title. The direct translation is "post," a place where someone works or carries out their duties, or "position" or "job." While at their posts, people are responsible for dealing with any problems that arise, foreseen or unforeseen, with whatever resources they have. Positions of responsibility may have been determined ahead of time, people may volunteer to take charge in times of crisis, or people may have responsibility thrust upon them. These "paths" to leadership are taken not just by government officials, but also by people in the private sector, community associations, emergency shelters, or other autonomous organizations.

In the dire conditions immediately after the earthquake and tsunami, we witnessed a great many individuals frantically working in the affected areas to fulfill their sense of duty. Their commitment to leading their mission was what halted the tremendous momentum of the disaster before the destruction was complete. The people who stoically persevered in restoring and defending the basic systems that enable a society to function had access to a crucial resource—longstanding relationships of trust in families and the community that were established before the quake.

Without mutual trust, it would have been impossible to work through the grief or impose any sort of order on the chaos. We needed the support of others to maximize our own contributions. When your post is a disaster area, you turn to people you trust in normal times to get your bearings and move forward.

Upholding fairness and justice is much more difficult in life-and-death situations. Even in times of crisis, however, we can maintain some "not on my watch" standards that add a small degree of stability. In Kamaishi, a shared determination to survive transformed into a mutual commitment to rebuild, no matter the obstacles. In extreme circumstances, a shared sense of hope critically empowered citizens to pull their community back from the brink of annihilation and begin moving forward.

As we conclude our introduction of the Kamaishi oral history collection project, we believe that everyday trust building efforts and shared hope in the worst of times are the foundations that makes it possible for people to fulfill their personal mission to do what they can to halt the damage and lead the recovery.