

Influence of Mothers on Occupational Expectations of Female University Students in Japan: A Comparison with the UK

Kaori Miyamoto*

Girls in Japan have expectations of future occupations with significantly lower socioeconomic status than Japanese boys and girls of other developed countries. To explore some of the factors associated with this tendency, this paper focuses on the influence of mothers. It compares 48 female university students in Japan and the UK through interviews, examining issues such as education, occupation, encouragement, and the role model of the mothers. First, results show that there were fewer interviewees expecting prestigious occupations in the STEM fields in Japan than in the UK. Second, the mothers' education and occupations affected the occupational expectations of interviewees in Japan more than in the UK. Third, more mothers of interviewees in the UK encouraged their daughters to aim for prestigious occupations than in Japan. Finally, mothers in neither country were role models in terms of occupations, which suggests that role models, or a lack thereof, elsewhere in society motivated or demotivated the interviewees to aspire to certain occupations.

Keywords

occupational expectations, career, gender, socioeconomic status, Japan

Introduction

1. Background

In recent years, the traditional model of the breadwinner husband and housewife has become unrealistic in Japan due to the stagnant salaries of males, which are no

longer sufficient to sustain a comfortable lifestyle. For example, among unmarried males, only one out of four earned a salary above Yen 4 million a year, and fewer than 1% earned over Yen 10 million (Osawa, 2015; Yamada, 2015, 2016; Ueno, 2021).

*PhD Candidate, Interdisciplinary Gender Studies, Humanities and Sciences, Ochanomizu University

Thus, although some single women still want to become housewives, most expect to continue working, even if they leave the workforce while their children are young (IPSS, 2017).

At the same time, Japan is facing declining birth rates, a shrinking labor force, and a stagnant economy. Moreover, female poverty is also on the rise, due to the changing family structure—increasing rates of divorce, unmarried women, and single mothers (Cabinet Office, 2022). To address these challenges, the government has acknowledged the need to maximize the use of resources to support its aging society. This entails improving female employment by closing the gender gap in the labor market, which is among the highest in the developed world. For example, in 2019–2021, the median gender wage gap was 22% (compared with 4% in Belgium), females were 13% of all managers (compared with 46% in Latvia), and the proportion of female doctors was 22% (similar to Australia in the 1970s) (Power 1975; OECD, 2021a; OECD, 2023).

While the government aims to increase the proportion of women in leadership positions to 30% by 2030 (Cabinet Office, 2020), this could be a challenge, as the existing pool of women with professional careers is small. In this context, this paper explores the factors involving occupational expectations of Japanese female students. It follows up on quantitative analyses which revealed that Japanese girls' average socioeconomic status of their expected future occupations was

significantly lower than that of Japanese boys and girls in other developed countries (Miyamoto, 2020, 2021). This requires attention because young girls who do not aspire to have challenging jobs from the time of adolescence generally have difficulties in developing a successful career later on (Schoon & Parsons, 2002; Goldin *et al.*, 2006; Mello, 2008; Schoon & Polek, 2011; Yokoyama, 2015). Low occupational expectations are a particular concern in Japan, where changing full-time jobs later on is difficult (Osawa, 2015).

2. *Objective of the Study*

Against this backdrop, this study aims to understand the factors that affect the relatively low occupational expectations of young Japanese females, focusing on the influence of mothers. While many other factors shape career development, these topics will be elaborated elsewhere. The paper also targets university students, as the underutilization of highly educated women is a significant loss to society (Miura, 2015; Osawa, 2015). This is a particular concern since married women who are university graduates in Japan tend to return to the workforce less than women with lower education (Hirata, 2011). In this context, the paper will compare female students enrolled in Japanese universities with those in the United Kingdom (UK) to assess whether differences in mothers' characteristics or influence contribute to Japanese females' lower occupational expectations.

The UK was chosen for comparison

since it is also a G7 country but with a relatively high international ranking on gender equality, i.e., 22 by the World Economic Forum, while Japan was ranked 116 (WEF, 2022). In recent years, the UK's median gender wage gap was 14% and the share of female managers and doctors was 37% and 49%, respectively. Furthermore, female undergraduate enrollment was 127% of males, while it was 85% in Japan (OECD, 2021b; OECD, 2023). As the UK is also on the traditional side of the liberal regime, according to Esping-Andersen (1999)'s category of welfare regimes, there could be some lessons learned for Japan, which is between a conservative and liberal regime (1997). To that end, 48 interviews were conducted among female university students in Japan and the UK. While recognizing that the small sample size limits generalization, distilling their voices and triangulating with existing literature and data can shed light on the reality women face in Japan and the UK today.

The next section reviews the literature that forms the basis of this paper. I then present the context and the research methods, followed by a discussion on the results of the interviews. The final section summarizes the findings, lists the limitations of the study, and offers some conclusions.

I. Literature Review

1. Definition

In this study, “occupational expectations” refers to occupations that youths realistically “expect to” have in the fu-

ture. It is slightly different from “occupational aspirations” which concerns occupations that youths “aspire” to have that can sometimes include wishful dreams. Many studies, in any case, do not make a clear distinction between the two, while others show that they are highly correlated (Marini & Greenberger, 1978; Saha 1997). Thus, although the term “occupational expectations” is used in this paper, it is intended to cover occupational choice more broadly. Furthermore, the expression “high occupational expectation” implies a high socioeconomic status of the occupation.

2. Theories and Studies

Developmental career theories elaborate on the environment, such as family, school, peers, workplace, social structures, mass media, and economic conditions, as determinants of occupational decisions (Nakayama, 1985; Farmer, 1997; Bandura *et al.*, 2001). For example, regarding family, the classic Wisconsin Model by Sewell *et al.* (1970) showed how fathers' education and occupations affected the sons' occupation *via* his academic aptitude and occupational aspiration, which became the basic theory for career development.

However, the relationship between mothers and daughters' occupational choices is mixed. For example, Schuette *et al.* (2012) did not find a significant correlation between the mothers' male/female-dominated occupations and their job status (professional, skilled, and unskilled) with the girls' aspirations. Furthermore, Von-

dracek *et al.* (1999) discovered differences between the mothers' occupational types (technical, sales, education, trade, banks, administration, and health) and the daughters' preferences. Finally, Marini and Greenberger (1978) showed that the occupational prestige of mothers had a significantly smaller effect on the occupational ambition of girls, compared to that of the fathers', mainly because two-thirds of the mothers were housewives.

In Japan, most research on female labor issues focuses on contractual categories or values attributed to working, as opposed to occupations *per se*. A few studies that involved occupations of mothers and daughters had mixed results. In earlier research, Ogawa and Tanaka (1980) found that mothers who were medical doctors had a higher effect on daughters expecting to become doctors than fathers being doctors. On the other hand, Nakayama (1985) stated that, in general, it was more difficult for mothers to become occupational role models as most were housewives. More recently, however, Motoharu (2004) showed that when mothers had professional occupations, a higher proportion of daughters opted for professional occupations. Specifically, Shikanai (2007) found that if mothers were civil servants or teachers, girls had a higher propensity to choose the same types of jobs than boys.

In the last two decades, occupational expectations of females have risen compared to the past and relative to boys in many countries (Looker & Magee, 2000; Schoon & Parsons, 2002; Francis, 2002;

Schoon & Polek, 2011; Watts *et al.*, 2015). Data from PISA 2006 onwards also revealed that, in most developed countries, girls, on average, had higher occupational expectations than boys (Sikora & Pokroppek, 2011; Miyamoto, 2020, 2021), except for Japan. Many of these studies attributed this phenomenon to changes in the industrial and service sectors, as well as increases in female education, equal job opportunities, returns to investment in human capital, female labor force participation, role models such as working mothers, divorce rates, single parent families and childcare measures (Looker & Magee, 2000; Francis, 2002; Baird, 2008; Schoon & Polek, 2011; Thevenon, 2016). In Japan, however, hardly any study so far shows that occupational expectations of females have become higher than or even close to those of males.

II. Context

To quantify the difference between the occupational expectations of females in Japan and the UK, nationally representative data derived from the Organisation for Economic Co-operation and Development's (OECD) 2018 Programme of International Student Assessment (PISA) were used. These data record the responses of 15-year-old high school students from around 80 countries to a question about the occupations they expected when they became 30 years old. These occupations were converted into the International Standard Classification of Occupations (ISCO)

codes of the International Labour Organization (ILO), which in turn were assigned International Socioeconomic Index (ISEI) scores. Generally, the higher the educational requirement and income earned for the occupation, the higher the ISEI score (e.g., 85 for astronomers and 17 for street sweepers).

In Japan, 46% of four-year university students were females in 2022 (MEXT, 2022). Analysis using PISA data showed that Japan, and Korea to some extent, were the only developed countries where the average ISEI scores of high school girls who planned to go to university were lower than those of boys. Japan's ISEI score was also lower than those of girls in all other countries, including the UK. To illustrate, among the top 10 occupations expected by girls in Japan ($n=1,129$), the most popular occupation was an administrative assistant (ISEI score 43). The third-ranked job, office supervisor, is also a generalist occupation, but with the possibility of becoming a manager (ISEI score 62). The high proportions of these two types of occupations reflect the Japanese labor market, where employers prefer to hire generalists as opposed to specialists and assign them to various jobs in exchange for lifetime employment.

The occupations chosen by Japanese girls with an ISEI score in the 80s were pharmacist, medical doctor, and secondary education teacher. Results also showed that 3% of the girls wanted to become a housewife, which the OECD assigns an ISEI score of 17 as it is not an occupation

according to ILO. The weighted average of the ISEI scores of the top 10 jobs was 61 for Japanese girls and 64 for boys.

For the UK, where 56% of university students were females in 2020 (Department of Education, 2022), the most popular occupation among high school girls who planned to go to university in the PISA data was to become a lawyer, with 12% of the total sample ($n=2,503$). Six other occupations in the top 10 with ISEI scores above 80 included generalist medical practitioner, psychologist, biologist, designer, veterinarian and dentist. The weighted average of the ISEI scores for the top 10 jobs was 75, which is higher than British boys (73) and Japanese girls.

III. Methods

To follow up on the quantitative findings above, a qualitative study was carried out to answer the following research questions among female university students in the two countries.

- What is the main difference between the occupational expectations of female university students in Japan and the UK?
- Are the mothers' characteristics and their influence on occupational expectations different?

As a first step, a proposal to interview students (#2021-146) was submitted and approved by the ethics committee of the author's university. A notice was then sent to solicit volunteers by snowball sampling through contacts at the OECD, university

teachers of a study group on econometrics, and other personal connections. Interested female university students studying in Japan and the UK who were agreeable to being interviewed were asked to fill in an online form. For those who signed up and were available from December 2021 to February 2022, everyone qualified was interviewed.

The online interviews were conducted either in Japanese or English, using a question guide that had been pilot tested and sent in advance. The semi-structured interviews, lasting about an hour and a half, asked questions about their occupational expectations, information on their parents, friends, and schools, as well as their views on gender-related workplace and childcare issues. As mentioned above, this paper focuses mainly on mothers' influence on occupational expectations.

The students signed forms in advance, granting their permission to conduct the interviews. After the interviews, the transcripts were sent to them for edits or approval. Extractions for this paper from the Japanese transcripts were translated into English by the author. While a small honorarium was offered, since the students had volitionally signed up, the assumption is that they were generally career-oriented and had something to say on the topic.

Furthermore, while the procedure to solicit interviewees in Japan and the UK was the same, because the two countries have different social structures, it was not possible to gather interviewees with very similar conditions. Thus, this research does not

claim that the interviewees are analogous or representative of their respective country. However, some concrete examples regarding the influence of mothers provide clearer images behind the quantitative analyses and literature that point to differences in key factors affecting the occupational expectations of females between the two countries. In addition, by examining the gender-related effects on the occupational expectations of those who are even career-oriented and/or from competitive universities, one could surmise the views of a typical young woman in the respective countries.

The analysis for this qualitative research was based on a methodology by Sato (2008). Interview results were used to triangulate with theory, other surveys, and quantitative data. Information was coded to enable data reduction, conversion to numerical forms, and quantification. A mixture of deductive and inductive approaches was applied against theories on mothers' influence on daughters' occupational choices. Cases were assembled to create code matrices according to patterns regarding gender dimensions. Finally, the matrices for Japan and the UK were compared to examine similarities or differences to develop the following narrative.

IV. Results and Discussion

1. Profile of the Interviewees

Table 1 shows the abbreviated profiles of the 27 interviewees in Japan, their majors, university groups, and expected occupations, which were matched with ISEI

scores based on the closest ISCO. It also includes the cities where they were raised, the parents' ethnic background, as well the final education and the latest occupations of their mothers, matched with ISEI scores. In sum, the interviewees were studying in 16 universities located from Hokkaido to Kyushu. As a proxy for academic ability, the types of universities are labeled into five types and grouped in three as: Former Imperial or competitive private¹ (11), (other) national (seven); and other private or public (nine), with competitiveness generally descending in that order.

Nineteen interviewees were undergraduates (two of whom were in law school and one was a medical student), seven were masters' students, and one was a Ph.D. student. Their majors ranged widely from economics, art, history, to molecular biology and their ages were mostly between 18 and 29. While most interviewees had Japanese parents and grew up in Japan, one interviewee was born and raised in Japan but had Indian parents and another was raised in the US and had a Japanese mother and an American father.

Table 2 shows the profiles of the 21 interviewees in the UK. They were studying in 12 universities located from Scotland to Southeast England. The types of universities were grouped into three: Ancient (seven), Russell Group (11) and other (three), with competitiveness generally descending in that order. Thirteen were un-

dergraduates (one of whom was a medical student), four were masters' students (one of whom was a law student), and four were Ph.D. students. Many of the majors were in the sciences, such as biology or neuroimmunology, and others included education and political science. Their ages ranged from 18 to 27.

1 Competitive private includes Waseda, Keio, and Sophia, commonly known as "SOUKEIJOU".

Table 1. Profile of the Interviewees in Japan and their Mothers

ID	Major	University Group	Expected Occupation	ISEI	Mother		City Raised	Parents' background
					Education	Occupation		
J1	Economics	Other private	Tax official	67	Technical school	Factory worker	Osaka	
J2	Social welfare	Other private	Social worker	53	Bachelor	Cosmetics researcher	Yokohama	
J3	Arts	National	Background artist	57	Junior college	Real estate agent	Kashima	
J4	Microbiology	National	Sales professional	74	Bachelor	Housewife	Saitama	
J5	History	Competitive private	Editor	74	Bachelor	Administration associate	Saitama	
J6	Regional economics	Other private	3D graphic designer	57	High school	Housewife	Neyagawa	
J7	Law	Competitive private	Business lawyer	87	Bachelor	CEO of a cosmetics company	Saitama	
J8	International politics	Competitive private	Sales professional	74	Bachelor	Childcare worker	Tokyo	
J9	Economics	Competitive private	International organization professional	73	Bachelor	Housewife	Kanagawa	
J10	Economics	Competitive private	Financial (data) analyst	76	Master	Secondary school math teacher	Tokyo	Indian Parents
J11	Project management	Other private	Banking associate	60	Technical school	X-ray technician	Sapporo	
J12	International development	National	Aid worker	71	Bachelor	Primary schoolteacher	Tokyo	
J13	Spanish	Other private	Business associate professional	63	Junior college	Administrative assistant	Wako	
J14	Gender and social science	National	Certified accountant	77	Bachelor	Building architect	Ibaraki	
J15	Food management	Other private	Nonprofit organization coordinator	53	High school	Teacher's aid	Hamamatsu	
J16	Economics	Competitive private	Certified accountant	77	Bachelor	Administrative assistant	Frisco	Japanese mother and American father
J17	Medical science	National	Specialist medical doctor	82	Bachelor	Administrative professional	Tokyo	
J18	International cultural exchange	Other public	Aid worker	71	Bachelor	Housewife	Nanyo	
J19	Economics	National	Business associate	60	Junior college	Cashier	Kurume	
J20	Nursing	Other private	Community health worker	53	High school	Waitress	Utsunomiya	
J21	Economics	Competitive private	International organization professional	73	Bachelor	Secondary schoolteacher	Tokyo	
J22	Literature	Former Imperial	University teacher	85	Doctorate	University teacher	Kyoto	
J23	Business management	National	Administrative associate	60	Bachelor	Teacher's aid	Fukuoka	
J24	International education	Competitive private	Aid worker	71	Master	Housewife	Kyoto	
J25	Law	Competitive private	Business lawyer	87	Bachelor	Administrative assistant	Saitama	
J26	Law	Competitive private	Legal professional	81	Bachelor	Secondary schoolteacher	Niiza	
J27	Economics	Other private	Administrative assistant	43	High school	Administrative assistant	Hannan	

Source: author

Table 2: Profile of the interviewees in the UK and their mothers

ID	Major	University Group	Expected Occupation	ISEI	Mother		City Raised	Parents' background
					Education	Occupation		
UK1	Medical science	Russell Group	Specialist medical doctor	82	Bachelor	Journalist	London	Japanese mother and British father
UK2	Education	Russell Group	Secondary schoolteacher	82	Bachelor	Housewife	Brussels, Milan	Japanese parents
UK3	Social science	Other	University teacher	85	Master	Cleaner	Eastly	British parents
UK4	Biology	Ancient	Biologist	81	Bachelor	Tour guide	Surrey	Japanese mother and British father
UK5	Education	Russell Group	Elementary schoolteacher	76	High school	Housewife	Ukraine, Italy, etc.	Ukrainian parents
UK6	Cancer research	Ancient	Cancer researcher	81	Master	Journalist	Waterloo	Japanese mother and Belgian father
UK7	Neuroimmunology	Russell Group	Neuroscientist	81	High school	Cleaner	North of London	British parents
UK8	Biology	Other	Cancer researcher	81	Bachelor	Statistician	Saint-Germain	Pakistani/German mother and Italian/American father
UK9	Arabic/Portuguese	Russell Group	Documentary filmmaker	63	Bachelor	Primary school Latin teacher	London	Italian parents
UK10	International relations	Ancient	Think tank researcher	83	Bachelor	Housewife	Hong Kong, Shanghai	Taiwanese mother and Belgian/ Spanish father
UK11	Economic geography	Russell Group	Researcher	83	Bachelor	Financial officer	Brussels	Portuguese parents
UK12	Biochemistry	Russell Group	Biochemist	81	Master	Human resource specialist	Romania, Luxembourg	Romanian parents
UK13	Law	Ancient	Barrister	87	Master	Airline logistics specialist	Surrey	British parents
UK14	Korean studies	Ancient	Academic	83	Vocational school	Massage therapist	London	Japanese mother and British father
UK15	Politics	Ancient	Diplomat	79	Bachelor	Russian teacher, city council worker	Norfolk	British parents
UK16	Psychology	Ancient	Elementary schoolteacher	76	Master	Elementary schoolteacher	Liverpool	British parents
UK17	Anthropology	Russell Group	Museum curator	77	High school	Teacher's aide in primary school	South Wales	British parents
UK18	Neuroimmunology	Russell Group	Neuroscientist	81	Master	Solicitor	Northern Ireland	Irish mother and British father
UK19	Education	Russell Group	Elementary schoolteacher	76	Bachelor	Housewife	Budapest	Hungarian parents
UK20	Nutrition	Other	Community worker	53	Bachelor	Administrative assistant	Nagoya	Japanese parents
UK21	Political science	Russell Group	Financial consultant	76	High school	Housewife	Birmingham	Hong Kong Chinese parents

Source: author

The cultural background of the interviewees was much more diverse on the UK side. While nine had two British parents and were raised in the UK, others had one or two parents from Japan, Italy, Hong Kong, Ukraine, Portugal, Romania, Hungary, Taiwan or a mixture of countries, and had attended international schools in Europe. One exception was a Japanese interviewee who had Japanese parents and grew up in Japan. While the ethnic variety of the interviewees on the UK side makes cultural interpretations challenging, the diversity reflects the reality of the UK today, where 22% of students are foreigners, although mainly from China, India, Nigeria, and the United States (Universities UK, 2022).

2. Occupational Choice

On the Japan side, several interviewees chose to become graphic designers, social workers, lawyers, and aid workers. Only one is expected to be an administrative assistant—the top choice in the PISA sample—as this type of occupation is increasingly temporary and low paid (Yamada, 2016; Ueno, 2021). Some interviewees first chose the type of organization, such as the public sector, due to its stability or better working conditions, and then specific occupations, such as a tax officer. Others chose certified occupations, popular among women who want a secure income or flexible working hours, such as accountant. The average ISEI score of the expected occupations by the interviewees was 69.

The interviewees in the UK were more

ambitious than those in Japan. Several expected to be lab scientists, academics/researchers, or teachers. Others expected to be a doctor, barrister, diplomat, and a financial consultant. Some occupations coincided with those in the PISA sample, such as lawyers, medical doctors, teachers and biologists. The average ISEI score of the occupations was 78, which was higher than the interviewees in Japan.

The main differences between the two countries were in science, technology, engineering, and mathematics (STEM) occupations. In Japan, only one interviewee—J17, a medical student—was pursuing a career in STEM, which tends to have higher wages and prestige. While this could be due to the sample selection, the dearth of participants aspiring for careers in STEM is consistent with general critiques of Japan's low proportion of females in STEM fields, which is partially based on gender stereotypes (Sikora & Pokropek, 2011; Nagamachi, 2021; Ikkatai *et al.*, 2021; Adachi, 2022).

Except for the medical student, none of the other 10 interviewees who liked science or math recalled that they were particularly encouraged to pursue a STEM field by their parents or school or sensed that society was promoting females in STEM. Even J15, a food management major, and J4, a microbiology major at the master's level, sought and were already offered non-STEM occupations that would not particularly use scientific knowledge.

In contrast, eight interviewees in the UK expected to work in the STEM field. While

not all their parents encouraged them to work in STEM, the parents of five interviewees at some point tried to encourage them to work in the sciences (see below). Furthermore, four interviewees said their schools encouraged females to pursue careers in STEM. UK1, a medical student, and UK4, an aspiring biologist said:

...when I was in school, there was a whole movement for women in STEM.... I'll go to the hospital, or I'll go into my lecture halls, it is almost female dominated. So I knew that when I got into the workplace, those movements would have taken such hold that I wouldn't necessarily feel pressured by those patriarchal standards of work, work, work, or nothing.

There was a lot of workshops for women in STEM because there's a big drive for that, essentially in England. They are trying to fix the gender gap. I remember going to those, thinking, what on earth is this rubbish, why do they need a Women in STEM Day, when men are just as important. In other words, it wasn't as apparent that there was a divide to me when I was younger. Because I'd always thought that, yes, I can go into whatever I wanted to go. By 13, I already knew that I probably wanted to do science.

In the UK, the share of females among new entrants in the STEM field at the bachelor's level was 31% in 2020, which was

higher than that of Japan at 18%, the lowest among developed countries (OECD, 2021b). In contrast, Japanese girls are top performers in math and science in the PISA tests. For example, among those who planned to attend university in the 2018 sample, Japanese girls were the second highest in science and math after Germany, whereas the UK was 12th in math and 9th in science. This means that, as females tend not to go into the STEM field despite their competence, Japan is underutilizing valuable human capital.

The UK government is promoting females in STEM by supporting various measures such as Women in Science and Engineering or Mums in Science Network, with an objective of increasing women's workforce in STEM from 24% in 2019 to at least 30% by 2030 (Christakou, 2020; STEM Women, 2022). In Japan, the Cabinet Office's Gender Equality Bureau initiated a "Riko-chare" initiative in 2005 to encourage female school students to choose the STEM field. It aims to increase the share of, e.g., female university teachers in natural science from 8% to 16% and engineering from 5% to 9% by 2025, respectively (Cabinet Office, 2020). In the future, a comparative study on the effectiveness of these programs in the respective countries could be explored.

Given these profiles, the following sections examine the mothers' influence on the interviewees' occupational expectations, which are broken down according to the categorization by Shikanai (2007):

○ Background: mother's education

- and occupation;
- Direct effect: encouragement by the mother; and
- Indirect effect: mother as a role model.

3. *Background: Mother's Education and Occupation*

Among the interviewees' mothers in Japan, 67% had at least a bachelor's degree. In terms of occupation, about 75% had quit working around childbirth, although there was no distinct pattern with the occupational prestige of mothers—e.g., an architect and a childcare worker stopped working, while a university teacher and a restaurant worker continued. Subsequently, after the children became older, most of these mothers took up some occupations ranging from factory worker, cashier, administrative assistant, to secondary schoolteacher, whereas five remained as housewives. The average ISEI score of all mothers' occupations was 47, or 54 excluding housewives. Eight mothers had occupations with ISEI scores above 70.

Quantitative analysis using the PISA 2018 data revealed that among girls who planned to go to university in Japan, their math scores, as well as their mothers' education and occupations positively affected the ISEI scores of their expected occupations. This was also reflected among the interviewees in Japan as their average ISEI scores correlated with the competitiveness of the university groups—78 for those attending Former Imperial or competitive private universities, 69 for (other) nation-

al universities, and 57 for other public or private universities. It coincides with the general view in Japan that, to get a good job, one should go to good universities. Furthermore, the mother's education and occupational ISEI scores also increased with the competitiveness of universities. In fact, all the interviewees attending the most-competitive university group had mothers with at least a bachelor's degree.

On the UK side, 76% of the mothers of the interviewees had at least a bachelor's degree, which was higher than the proportion in Japan. This reflects females' generally higher university enrollment in Europe. However, and similar to the interviewees in Japan, approximately 75% of the mothers of interviewees in the UK had intermittent career paths when the children were young. Here, the mothers who continued their careers tended to have occupations with relatively high ISEI scores, such as solicitor, statistician, human resource specialist, or elementary schoolteacher.

Other latest occupations of the mothers ranged from nursery teacher, tour guide, cleaner, journalist, to financial officer. In addition, there were five housewives, but they were from Japan, Taiwan, Hong Kong, Ukraine, and Hungary—cultures known to have traditional gender roles. On average, the ISEI score of the mothers of interviewees in the UK was 47, or 53 when counting only working mothers, very similar to Japan. Similarly, eight mothers had occupations with ISEI scores above 70.

An analysis using the UK data from 2018 PISA showed that there was no sig-

nificant relationship between the education and occupations of the mothers with the ISEI scores of the high school girls' expected occupations. This was also reflected among the interviewees in the UK where the mothers' education or occupations nor the competitiveness of the university types were strongly related with the ISEI scores of the expected occupations. For example, the mothers of UK 3, who was planning on becoming a university teacher, and UK7, an aspiring neuroscientist, were cleaners, although one with a master's and the other with a high school degree. Furthermore, while UK9 was the only interviewee expecting an occupation with an ISEI score below 70 as a documentary maker, her mother was a Latin teacher with one of the higher ISEI scores among the mothers.

The above confirmed that, in Japan, the mothers' education and occupational prestige affected the occupational expectations of interviewees *via* their academic ability, mirroring the Wisconsin Model between fathers and sons. On the other hand, in the UK, several interviewees had high occupational expectations even when the mothers did not necessarily have prestigious occupations. Although the UK has been considered as a class society in the past, there may be measures to reduce inequality. The child poverty rate was 11.3% in the UK, which was lower than Japan's at 13.9% in 2015, the latest comparable year (OECD, 2023). The case in the UK suggests that it is possible for young women from unprivileged backgrounds to attend competitive universities and have high oc-

cupational expectations. Further research could compare the effectiveness of measures to promote females in STEM and finance university education, such as the Tuition Fee Loans in the UK and those by the Japan Student Services Organization.

4. *Direct Effect: Encouragement by the Mother*

On parental encouragement, 20 mothers were either *laissez-faire* or supportive of whatever occupation the interviewees in Japan were expecting. Others had general suggestions such as continuing a career or having a stable income, but not necessarily a specific occupation. The exception was the mother of J17, a medical student, who pressured her daughter to become a doctor, and the mother of J19, a would-be business associate, who suggested to her to go to a junior college, become an airport ground staff, and catch a nice man.

On the UK side, 14 mothers were also *laissez-faire* or supportive of the occupational choices of the interviewees. However, six mothers encouraged them to pursue prestigious occupations, including in STEM. And most of these mothers had at least a bachelor's degree, a prestigious occupation, or both. For example, UK8, an aspiring cancer researcher, said of her mother, a statistician in an international organization with a bachelor's degree:

She expects me to have a very high position in an organization. It's an income thing, but also a status thing... Obviously, they would be really

happy if I was a doctor or lawyer or something.

Furthermore, UK18, an aspiring neuroscientist, said her mother, a solicitor, wanted her to take up the same occupation.

She has made the suggestion to become a solicitor... She wanted me to follow in her footsteps ...I think she would have liked me to have a job with high prestige, something that she would be proud to tell her friends... It wasn't good enough that I would just study science; it would have been good if I was going to be a doctor.

Despite these encouragements, only UK6, a would-be cancer researcher, and UK12, an aspiring biochemist, were pursuing occupations that coincided with their mother's wishes. Nevertheless, the others were expecting highly prestigious occupations, mostly as scientists.

The commonality between the two countries was that most mothers were laissez-faire or supportive of the occupational choices of the interviewees. However, more mothers of interviewees in the UK than in Japan pressured their daughters to aim high in their career planning, including to work in STEM fields. While many of these interviewees did not necessarily pursue the suggested occupations *per se*, they tended to aim for prestigious ones. For Japan, a forthcoming paper will discuss the extent to which Gottfredson's (1996) theory of circumscription and

compromise applied, which supposes that mothers avoided encouraging prestigious occupations due to the lack of women in these occupations and perceived trade-offs with family life. In addition, the discussion will be linked with Goldthorpe's (1983) Conventional View, whereby women's social status is regarded as largely dependent on the husband's standing.

5. Indirect Effect: Mother as a Role Model

Mothers can be occupational role models or counter-role models to daughters' occupational expectations. In Japan, at one extreme, three interviewees considered their mothers' careers as role models. For example, J7, an aspiring lawyer, was inspired by her mother, a cosmetics company's chief executive officer. But she was impressed by her mother's eloquence and people management skills –requisites for lawyers—rather than her occupation *per se*.

...when I was distressed over managing a (chorus) club during high school, my mother, who had become a manager a few years earlier, was able to summarize and express well how to advance discussions and guide my juniors.

In addition, J22, a future academic, followed in the footsteps of her mother, a university professor. However, the role model was not only about the occupation but also her mother's ability to combine her professional and family life, particularly since there were so few in academia.

Even if they get a Ph.D., they are not teaching anymore, because for example, they had children and stayed at home. So those who became academics with children would be 20 years older than me. I finally found someone, but then there wasn't anyone above that, and then I ended up with my mother. I always wanted to get married and have children, so the fact that I took the same path is because I was conscious of her.

Furthermore, five other interviewees praised their mothers for working and caring for the family, regardless of their occupations. In contrast, 10 interviewees stated that, because they wanted their careers to be uninterrupted or uncompromised, they preferred to be different from their mothers, regardless of their occupations. For example, J25, would-be business lawyer, said of her mother who worked as an administrative assistant:

By watching my mother since childhood, I thought I wanted to continue working as a full-time worker even around childbirth. My mother quit working when she had my older brother...and seeing her often having trouble finding jobs, I became to think that, when I have children, I want to avoid quitting work by using parental and maternity leave.

Some interviewees saw different aspects of role models or counter-role models in

their mothers. For example, J14, who aspired to be a certified accountant, thought that her mother was a role model in terms of having a qualified occupation, but not so much in terms of her intermittent career.

...because she has a qualification as an architect, it provided security as she had highly paid contracts and was able to do inspection work. So from my mother, I thought it was necessary to get a certified occupation. On the other hand, my mother wanted to continue her career, but she often said it wasn't possible during her era.... So from that perspective, I think it's important to continue a career without quitting.

Among the UK participants, none of the interviewees were following the exact occupational footsteps of their mother. However, four interviewees considered their mother's uninterrupted careers as role models. For example, UK12, a would-be biochemist, said of her mother, who was a human resource specialist:

(My mother was a role model) being a career woman. I'm set to follow the same path. And I want to be focused on my career and keep growing until I'm older. So I think in that sense, we both have the same goals. That's what I want my future to look like, just in a different field.

UK13, an aspiring barrister, said of her

mother, who was an airline logistics specialist:

I would want to be that kind of role model for my children. I really respect the fact that she is self-employed and she's as successful as she is. She completely made her own way and has a pretty successful career, flexibly on her own terms with what she enjoys.

Furthermore, UK18, an aspiring neuroscientist, expected to follow a high-status occupation like her mother, who was a solicitor.

I've always been driven as a high achiever for several reasons, but one of them was just to try and make her proud of me...

Otherwise, seven interviewees praised their mothers for returning to their careers or balancing work and family, all regardless of their occupations. At the same time, 11 interviewees thought that the mothers could have done other things, such as continuing their career or furthering their education. For example, UK19, an aspiring elementary schoolteacher, said of her mother, who was a housewife:

What I would change is, I think, it's also important to sometimes put yourself first and your goals in life and career goals.

UK3, a would-be university teacher, also

said of her mother, who was a cleaner with a master's degree:

I definitely learned the lesson from her to not give up a career or education or aspirations for a relationship... She wanted to get a Ph.D. And I think, with childcare, she couldn't really get a job when she was looking after us most of the time.

Five interviewees thought that their mothers should have made their fathers do more housework, presumably because that would have freed up additional time for their occupations or other activities.

The mixed picture of mothers as role models was similar between Japan and the UK. On both sides, role models were mostly not about occupations *per se*, as very few interviewees expected to take up their mother's professions, including in the STEM field. This finding coincides with a study that mapped 5.6 million parent-child pairs, concluding that children tend to choose occupations that are different from that of their parents (Adamic & Filiz, 2016).

For both countries, while a few considered their mothers as role models in continuing their successful careers or in balancing work and family, a larger share of interviewees preferred not to disrupt or compromise their careers like them. Therefore, in terms of their expected occupations, it is possible that the presence or lack of role models elsewhere in society could have had a motivating or demotivat-

ing effect, which is a topic for further research.

V. Summary and Conclusion

This study compared female university students in Japan and the UK using interviews to understand the factors contributing to young Japanese females' relatively low occupational expectations. The analysis confirmed that most interviewees in Japan tended not to expect occupations with high socioeconomic status, especially in the STEM field, compared to the UK. To explain some of the factors, this paper focused on the influence of mothers.

Findings indicated that, while mothers of interviewees in the UK were somewhat more educated, Japanese university students' occupational prestige or career trajectory were not hugely different with mothers in Japan. However, mothers' education and occupational prestige affected the daughters' occupational expectations more in Japan. The UK case seem to indicate that there may be other societal mechanisms to promote females to attend universities and aim for challenging jobs, including in the STEM field. Furthermore, in both countries, mothers' encouragement was generally not decisive in the choice of occupations by the daughters. However, pressure to aim high by some mothers of the interviewees in the UK could have lifted the bar for the daughters to select among more prestigious occupations. Mothers' reticence to encourage daughters to aim high in Japan should be analyzed

and addressed. Finally, as most mothers were generally not role models in terms of their occupations *per se* in either country, it suggests that their presence elsewhere in society could be making a difference between Japan and the UK.

This paper has several limitations. First, the interviewees were not necessarily representative of female university students in Japan or the UK, as they volunteered to participate in the study and convey their ideas about their future careers; thus, they were relatively career-oriented. Second, while the universities of the interviewees were diverse geographically, as many were competitive and/or located in relatively large cities, interviewees were presumably more progressive on gender issues than average female university students in both countries. Third, differences in the labor market where employers in Japan tend to hire generalists instead of specialists in the UK make occupational comparisons challenging. Fourth, the ethnic diversity of the interviewees, particularly in the UK, including those who had one or two Japanese parents, made cultural attributions complex.

Despite these shortcomings, this paper nevertheless examined the differences and similarities regarding mothers' influence on occupational expectations of females in Japan and the UK, identifying other possible factors that might explain why they are higher in the UK. One cannot emphasize enough that women must be more economically active, which requires young females to have occupational expectations

commensurate with their education and competencies long before entering the labor market.

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要旨

日本の女子大生の職業アスピレーションに対する母親の影響 ——英国との比較

宮本香織*

日本の女子は、男子や他の先進国の女子と比べて、将来期待する職業の社会経済的地位が顕著に低い。その要因を追究するために、本研究はその要因として、母親の影響に焦点を当てる。具体的には、日本と英国の女子大生48人をインタビューし、母親の学歴、職業、奨励、ロールモデルなどについて比較する。結果は、まず、日本では英国に比べて、社会経済的地位の高いSTEM系の職業を期待する女子が少なかった。第二に、母親の学歴と職業は、英国の女子よりも、日本の女子に対して影響が強かった。第三に、その一方で、英国の女子の母親の方が、日本の母親よりも、地位の高い職業を奨励していた。最後に、どちらの国でも、母親は職業的にはロールモデルとはなっていないため、各々の職業を目指す意欲を左右させるロールモデルは、他に社会に存在している、あるいは欠けている可能性を示唆している。

キーワード

職業アスピレーション、キャリア、女子大生、社会経済的地位、英国

*お茶の水女子大学 人間文化創成科学研究科ジェンダー学際専攻 博士後期課程