Educational Status and Income: Correlations with Subjective Evaluation of Marital Quality
— Differences by Gender and Age-cohort —

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学歴と収入：結婚の質に対する主観的評価との相関
— ジェンダーと年齢コーホートによる差異 —
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　性別役割分業がまだ定着している日本では、夫婦関係に対する主観的な評価（i.e. 夫婦関係満足度など）と社会経済的変数（i.e. 夫の収入など）との間に相関が認められる。本論文では、社会経済上での勢力が異なると考えられる夫と妻とで、学歴や収入などの社会経済的変数と、結婚の質に対する主観的評価（i.e. 心理的サポート、結婚の諸側面に対する満足度、トラブルに対する認知など）との間に認められる相関が異なるかどうかを検証した。また「性別役割分業に賛成する割合は、年齢層が高いほど多い」との報告もあるので、年齢コーホートによる違いも検証した。その結果、ジェンダーによる差異は認められたが、年齢コーホートによる大きな差異は認められないことが明らかになった。すなわち、夫の場合には、自分の学歴や収入と、結婚の質に対する主観的評価との間に、また妻の場合には、世帯収入と結婚の質に対する主観的評価との間に、有意な相関が多く認められた。さらに社会経済的な勢力が相対的に近似していると考えられる夫と妻とを抽出して、同様の分析を行った結果、夫と妻とで大きな差異は認められないことが示された。

キーワード：結婚の質、学歴、収入

1. Introduction

　More than 50% of married women in Japan works outside the home.　However a division of labor by gender role still seems to exist in Japan.　Tsuchikura (1998) found significant gender differences in terms of what is expected as a member of the family.　Compared with wives, husbands were expected to fulfill their occupational duties, and to earn the family income. Wives, on the other hand, were expected to cook, do household chores, and raise children[1]. The question can be asked - is there a relationship between the division of labor by gender role and subjective evaluation of marital quality?　Kamo (1993) tried to answer this question by comparing married couples in the US and Japan.　In general, women in the US are thought to have stronger socio-economic power than their counterparts in Japan.　As such Kamo was interested to see whether there were differences in the relationship between socio-economic variables (i.e. husbands' income) and marital satisfaction between couples in the US and Japan.　Results showed that socio-economic variables were correlated more strongly with

marital satisfaction in Japan (for both husbands and wives) than in the US.

Another variable that may play an important role in gender role attitudes is age. Results from the NFRJ03 database (Shimazaki, 2005) show attitude differences towards gender role based on age-cohort. In the NFRJ03 dataset there are two items that measure attitudes toward gender role – "Males should work outside, and females should make a home", and " It is the duty for males to earn money to make a living ". Results show that in Japan, the older the age-cohort, the stronger the tendency to agree with these statements.

In this paper I extend Kamo's findings by examining further the relationship between socio-economic variables (educational status and income) and subjective evaluation (SE) on different aspects of marital quality. In addition, I look at the possible influence of age, to see whether correlations between these socio-economic variables and subjective evaluation (SE) of marital quality vary as a function of gender and age-cohort. Specifically I ask the question – do correlations between different socio-economic variables, namely educational status and income, and subjective evaluation (SE) of marital quality vary as a function of gender and age-cohort?

2．Method

The data used in this study is taken from the NFRJ03 dataset of the Japan Society of Family Sociology. The NFRJ03 dataset has cross-sectional data comprising 6302 respondents who were living in Japan between January and February 2004 with an age-range between 28 and 77. Age of respondents was computed by determining how old they were on December 31, 2003.

The following analysis using NFRJ03 is restricted to respondents who had a spouse (partner) including common-law marriage, and who were not widowed (Male N=2463, Female N=2647). In this analysis, males and females in common-law marriage are included within the "Husband" and " Wife" categories.

The dependent variables are related to subjective evaluation (SE) on three aspects of marital quality, namely, psychological support, satisfaction, and perception of troubles. Psychological support consisted of three items. "My partner listens to my worries and distress"; "My partner evaluates highly my competency and effort"; and "My partner gives me advice." Possible responses could range from 1 (agree) to 4 (disagree). In the analysis I recoded 1 to 4, 2 to 3, 3 to 2, and 4 to 1. Satisfaction consisted of six items – partner's contribution to raising children, partner's attitude to respondent's parents, partner's contribution to household chores, management of family budget, sex life, and global evaluation of relationship with partner. Possible responses could range from 1 (very satisfied) to 4 (very dissatisfied). In the analysis I recoded 1 to 4, 2 to 3, 3 to 2, and 4 to 1. For perception of troubles, respondents were asked, "During the last one year, have you experienced any troubles or had fights with your partner?" Possible responses could range from 1 (very often) to 4 (none). In the analysis I recoded 1 to 4, 2 to 3, 3 to 2, and 4 to 1.

Three independent variables were used in the analysis. Educational status refers to the final school level reached. Responses can range from 1 (junior high school) to 6 (graduate school). Possible responses on personal annual income ranged from 1 (none) to 15 (more than ¥12,000,000). Responses on family annual income ranged from 1 (none) to 18 (more than ¥16,000,000). I excluded respondents without any income in the analysis relating to both personal annual income and family annual income.

For the age-cohort variable, I grouped respondents into 5 age groups, "28-37", "38-47", "48-57", "58-67", and "68-77" years.

Spearman correlation analyses were conducted (1) between each item among the ten dependent variables and educational status, (2) between each item among the ten dependent variables and respondent' annual income, and (3) between each item among the ten dependent variables and family annual income.

3. Results

Table 1 shows the results of the Spearman correlation analysis between educational status and subjective evaluation (SE) of marital quality. In each age-cohort, many items measuring husbands' SE of marital quality were significantly correlated with educational status (except for "48-57" age-cohort). On the other hand, in all age-cohorts, only six items measuring wives' SE were significantly correlated with educational status. This result suggests that there is not a significant relationship between a wife's' SE and her educational status (except in the case of six items).

Table 2 shows the results of the Spearman correlation analysis between personal annual income and SE of marital quality. In all age-cohorts only four items measuring wives' SE of marital quality were significantly correlated with personal annual income. On the other hand, in the husbands' age-cohorts, several items measuring husbands' SE were significantly correlated with personal annual income. For example, in the "48-57" age-cohort, seven out of ten items were significantly correlated with personal annual income. As with educational status, this result suggests that there is not a significant relationship between wives' SE and personal annual income (except for four items).

Finally Table 3 shows the results from the Spearman correlation analysis between family annual income and SE of marital quality. In each age-cohort, many items measuring wives' SE of marital quality were significantly correlated with family annual income (except for the "38-47" and "68-77" age-cohorts). On the other hand, for husbands' most items measuring husbands' SE were not significantly correlated with family annual income. The exception was for the "48-57" age-cohort in which seven out of ten items measuring husbands' SE were significantly correlated with family annual income. For the "48-57" age-cohort, there was a significant relationship between both husbands' and wives' SE of marital quality and family annual income.

Table 1. Educational Status and Subjective Evaluation of Marital Quality (Gender*Age cohort-10)

	Coefficient of Correlation (Spearman)											
Age Cohort	All		28-37		38-47		48-57		58-67		68-77	
	Husband	Wife	Husband	Wife	Husband	Wife	Husband	Wife	Husband	Wife	Husband	Wife
N	2446	2626	345	516	472	613	614	673	614	537	401	287
Psychological Support												
Listening to worries	.05**	.04*	.12*	.07	.16**	.07	-.04	.03	.04	.03	.07	.03
Eval[1] of competency	.13**	.08**	.16**	.08	.16**	.09*	.05	.12**	.17**	.12**	.11*	.08
Giving Advice	.07**	.06**	.14*	.07	.13**	.10	-.03	.08*	.12**	.06	.07	.06
Satisfaction on differenct aspects of marital quality												
P's[2] contribution to Raising Children	.10**	.04*	.17**	.11*	.18**	.06	.12**	.04	.00	.05	.19**	.02
P's Attitude to respondent's parents	.10**	.03	.10	.00	.16**	.04	.05	.00	.19**	.10	.40**	.10
P's contribution to household chores	.09*	-.04	.11*	.03	.16**	-.04	.10*	.01	.09**	-.01	.13**	-.04
Management of family budget	.07**	.01	.11*	.04	.20**	.10*	.05	.06	.02	.05	.15**	-.03
Sex Life	.06**	-.03	.07	-.02	.10*	-.04	.02	.02	.05	.00	.12**	-.07
Global Eval of relationship with partner	.12**	.02	.08	.03	.21**	.00	.06	.06	.09**	.05	.16**	-.03
Perception of troubles	-01	.03	-12*	03.	-.06	-.03	.02	.04	.02	-.06	-.05	.04

* $p<.05$; ** $p<.01$
Notes: (1)Eval=Evaluation
(2)P's=Partner's

Table 2. Personal Annual Income and Subjective Evaluatiof on Marital Quality (Gender*Age cohort-10)

	Coefficient of Correlation (Spearman)											
Age Cohort	All		28-37		38-47		48-57		58-67		68-77	
	Husband	Wife	Husband	Wife	Husband	Wife	Husband	Wife	Husband	Wife	Husband	Wife
N	2318	1794	335	258	450	439	570	472	577	375	386	250
Psychological Support												
Listening to worries	.02	.02	-.02	.03	.09	-.00	.08*	.06	-.00	.01	.03	.01
Eval[1] of competency	.09**	.08**	.08	.00	.08	.09	.11*	.15*	.10	.06	.12*	.07
Giving Advice	.02	.04	.05	-.05	.06	.04	.05	.10*	.05	.06	.02	.05
Satisfaction on differenct aspects of marital quality												
P's[2] contribution to Raising Children	.06**	.00	.16**	-.00	.17**	.06	.18**	.01	-.00	-.04	.11	.04
P's Attitude to respondent's parents	.07**	.05	.15*	.02	.03	.07	.16**	.04	.02	-.05	-.07	.27
P's contribution to household chores	.04	.05*	.05	.06	.15**	.06	.09*	.07	.07	.06	.05	.06
Management of family budget	.05*	.05*	.12*	.12	.16**	.09	.09*	.10*	.04	.02	.13*	-.01
Sex Life	.02	.02	.01	.04	.00	.03	.07	.02	.00	.06	.00	.00
Global Eval of relationship with partner	.07**	.03	.09	.05	.09*	.02	.10*	.04	.03	.03	.12*	.01
Perception of troubles	-.02	.01	-.10	-.13*	.06	.00	-.02	.00	.00	.01	-.07	.09

* $p<.05$; ** $p<.01$
Notes: (1)Eval=Evaluation
(2)P's=Partner's

Table 3. Annual Family Income and Subjective Evaluation of Marital Quality (Gender*Age cohort-10)

	Coefficient of Correlation (Spearman)											
Age Cohort	All		28-37		38-47		48-57		58-67		68-77	
	Husband	Wife	Husband	Wife	Husband	Wife	Husband	Wife	Husband	Wife	Husband	Wife
N	2272	2420	323	472	442	572	564	621	571	494	372	261
Psychological Support												
Listening to worries	-.00	.05	-.04	.11*	.05	.03	.08	.09*	-.00	.04	-.02	.13*
Eval[1] of competency	.08**	.09**	.09	.15**	.04	.06	.12**	.09*	.08	.14**	.13**	.13*
Giving Advice	.02	.06**	.08	.12*	.02	.04	.08	.09*	.04	.09	.00	.13*
Satisfaction on differenct aspects of marital quality												
P's[2] contribution to Raising Children	.04	.06**	.12	.15**	.07	.04	.20**	.11*	-.00	.10*	-.00	.05
P's Attitude to respondent's parents	.05	.08**	.10	.11*	.03	.07	.17**	.10*	-.02	.12*	-.14	-.13
P's contribution to household chores	.01	.00	-.07	.10*	.04	-.02	.10*	.04	.03	.07*	.05	.02
Management of family budget	.04*	.14**	.03	.21**	.10*	.17*	.12**	.22**	.03	.17**	.04	.02
Sex Life	.02	.04	-.04	.10*	-.02	-.01	-.09*	.04	-.00	.15*	.06	-.04
Global Eval of relationship with partner	.03	.10**	-.02	.17*	.00	.02	.11*	.17**	.05	.19**	.03	.07
Perception of troubles	-.03	-.08**	-.06	-.22**	-.01	-.08	-.00	-.12**	-.02	-.11*	-.09	.04

* $p<.05$; ** $p<.01$
Notes: (1)Eval=Evaluation
(2)P's=Partner's

4. Discussion

The results show: (1) subjective evaluation (SE) of marital quality of husbands tends to be influenced more by educational status and personal annual income than it is for wives; (2) SE of marital quality for wives tends to be influenced more by family income than it is for husbands; and, (3) only in the "48-57" year age-cohort was family income significantly correlated with husbands SE of marital quality.

Results (1) and (2) suggest that division of labor by gender role still exists in Japan. This division of labor by gender role is strongly connected with the socio-economic power gap between husbands and wives. For example, 22% of husbands (N=533) earned more than ¥7,000,000 per year, compared with 2% of wives (N=40). Also in terms of educational status, 30% of husbands (N=723) graduated from university (including graduate school) compared with 9% of wives (N=245). Although personal income is significantly correlated with family income (Husbands r=.76, p<.01; Wives r=.40, p=<.01), these two types of income are differently correlated with SE of husbands and wives. Wives' weaker socio-economic power seems to explain the result that wives' SE is influenced more by family income than by their own income.

Second, result (3) suggests that the "48-57" age-cohort is a unique period in terms of the correlation between SE of marital quality and family annual income for husbands. Only in this age-cohort, do seven items of the husbands' SE correlate significantly with family annual income.

Family income in the "48-57" age-cohort was significantly higher than the age-cohorts "28-37" ($p<.01$) and "38-47" ($p<.01$). However husbands' perception on tightness of family budget was not significantly lower than that in the "28-37" and "38-47" age-cohorts. In considering these results, it is possible to think that although husbands in this age group earn more money than when they were younger, they need to spend more money on their family (i.e. on things such as loans and education expenses for children). Husbands may disagree with their wives on what items they spend their money. Differences in opinion may influence their relationship. Unfortunately in this study we are unable to test this assumption because there is no data on how much money is spent during each of their life stages.

In order to further understand these results, an analysis was done both husbands and wives who worked, who had full time jobs, and who were employed during the survey year[2]. Table 4 shows there were no big gender differences in the correlations between socio-economic variables and SE of marital quality. This result suggests that the stronger the socio-economic power of wives, the smaller the gender difference.

Table 4. Subjective Evaluation of Marital Quality vs Educational Status,
Personal Annual Income, and Family Annual Income

Socio-Economic Variables	Education		Personal Income		Family Income	
	Husband	Wife	Husband	Wife	Husband	Wife
N	218	239	212	223	220	241
Psychological Support						
Listening to worries	.10	.14 *	.06	.02	.06	.12 +
Eval[1] of competency	.15 *	.21 *	.09	.06	.07	.11
Giving Advice	.03	.18 *	.09	.04	.11	.08
Satisfaction on differenct aspects of marital quality						
P's[2] contribution to Raising Children	.18 *	.09	.13 +	.03	.11	.07
P's Attitude to respondent's parents	.05	.07	.07	.10	.10	.05
P's contribution to household chores	.13 +	.06	.14 *	-.03	.08	-.01
Management of family budget	.23 *	.16 *	.21 **	.07	.19 **	.16 **
Sex Life	.00	.02	-.00	-.07	-.01	-.08
Global Eval of relation- ship with partner	.13 +	.13 +	.09	-.03	.05	.04
Perception of troubles	.13 +	-.06	.03	-.05	.01	-.09

+ $p<.10$; * $p<.05$; ** $p<.01$
Notes: (1)Eval=Evaluation
(2)P's=Partner's

While it is beyond the scope of the current study, it would also be interesting to ask respondents further questions, such as "how much money he/she spend a year on their family?", "on what items do they spend their money?", " has he/she experienced worries or anxiety

about family budget?", "has he/she had any fights or quarrels about family budget with a partner?" etc. By comparing objective variables and subjective variables, we will be better able to see what is behind these results. In the meantime, the next research question that will be examined will be — "how the change in the balance socio-economic power between husbands and wives influences perceptions on marital quality."

Notes
1) The question was "what do you expect from your partner on a routine basis?"
2) In NFRJ03, respondents were asked information about his/her partner - "does he/she have a full time job?" ; and what is their educational status, and personal annual income (husbands N=218; wives N=240).

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