The Impact of Intra-household Bargaining Power on the **Happiness of Married Women: Evidence from Japan**

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RESEARCH PAPER



The Impact of Intra-household Bargaining Power on Happiness of Married Women: Evidence from Japan

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Abstract
This paper evaluates the correlation between intra-household bargaining power and the happiness of married women using Japanese longitudinal survey data (Japanese Panel Survey of Consumers: JPSC) from 1995 to 2013. The results suggest that when absolute income, relative household income, and other factors are constant, the income gap, wage gap and education gap between wife and husband negatively affect married Japanese women's happiness. The proportion of the total household income or husband's income con-trolled by the wife can positively affect married Japanese women's happiness. The effects of intra-household bargaining power on happiness are greater for the working married women group than the housewife group.

Keywords Intra-household bargaining power \cdot Happiness \cdot Married working women Housewife \cdot Gender roles

1 Introduction

According to conventional neoclassical economics, the well-being of a people is measured by the total value of individual utility: for the economist this has posed a problem. Utility cannot be measured because individual utility is an ordinal number not a cardinal number, therefore it is difficult to compare utility between individuals. In the 1980s, Happiness Economics overturned this argument. In Happiness Economics, subjective well-being (SWB) is one of the indicators reflecting the theoretical concept of individual utility. Measurement of individual utility (happiness, life satisfaction) is necessary when evaluating a social policy and the empirical study of happiness has become an important concern.

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Outline

- 1. Introduction
- 2. Literature review
- 3. Methodology
- 4. Results
- 5. Conclusions

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1 Introduction

- Measurement of individual utility (happiness, life satisfaction) is necessary when evaluating a social policy and the empirical study of happiness has become an important concern.
- Two hypotheses, the absolute income hypothesis and the relative income hypothesis, have been advocated by economists to explore the impact of income on happiness, (Duesenberry 1949; Leibenstein 1950).
- Empirical studies for Japan have tested the two hypotheses, and they indicate that both the absolute income hypothesis and relative income hypothesis are supported for Japan, but important issues remain to be analyzed.

Motivation

• Studies based on the Collective Model proposed by Chiappori (1992), all point out that intrahousehold bargaining power differs between husband and wife, and the intrahousehold bargaining power gap may influence household resource allocation(Chiappori et al. 2002, Couprie 2007, Lise and Seitz 2011, Cherchye et al. 2012, Browning et al. 2013, Lise and Yamada 2014, and Cherchye et al. 2015)

It is thought that the intra-household bargaining power gap may affect married women's well-being, however published empirical studies on the issue are scarce.

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Motivation

Most published studies analyze the determinants of happiness based on the OLS or ordered logit regression model using one period or repeated cross section survey data

There may remain the heterogeneity problem in these studies.

Research Question

- This study uses empirical tests for the impact of intra-household bargaining power on happiness using data from the Japanese longitudinal survey (Japanese Panel Survey of Consumers: JPSC) conducted from 1994 to 2014.
- Dynamic panel data analysis methods address the heterogeneity problem.
- The results contribute new evidence for the study of happiness, and enable a deeper understanding of the work-family conflict as it affects married Japanese women.

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4 Literature Review

How does intra-household bargaining power affect the wife's happiness

- based on the individual utility maximum rule in Neoclassical economics theory, when the wife feels very happy with the increase of her intra-household bargaining power, her happiness may increase when her income (wage) is higher than her husband's, or her educational attainment level is higher than her husband's (positive effect).
- according to household production model in family economics (Becker 1965; Gronau 1977), in order to maximize total household utility, family members attempt to efficiently allocate time and income. Because the market wage is usually higher for men than for women, and the housework skill is usually higher for women than for men, usually the husband should work for a longer time and obtain more income than the wife. Therefore in the unusual circumstance when the wife's income is higher than her husband, the wife's higher income may cause unhappiness for the husband that might in its turn cause unhappiness for the wife (negative effect).

4 Literature Review

How does intra-household bargaining power affect the wife's happiness

- from the mental health perspective, it is thought that working hours might be longer for the group with a high income (wage) or higher educational attainment group. When the high income (wage) wife group works longer hours, it might cause mental health problems that decrease the wife's happiness (negative effect).
- based on Confucianism and traditional gender role consciousness, the patriarchal consciousness crystallized as "men for work, women for family" persists as an influence on Japanese women's housework and labor participation behaviors. For the group with stronger gender role consciousness, when the income (wage) or educational attainment level is high (negative effect).

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4 Methods: Data

- The three-wave longitudinal data obtained from the Chinese Health and Retirement Longitudinal Study (CHARLS) which was conducted by Peking University representative regions in China in 2011, 2013, and 2015—were used in this study.
- The survey objects were individuals aged 45 and older. The baseline wave included about 10,000 households and 17,500 individuals in 150 counties/districts and 450 villages/ resident committees.
- CHARLS contained a rich set of individual-level information, such as demographic characteristics, family structure, household consumption, social participation situation, subjective and objective health status, and other related information.

3 Methods: Data

- This study uses the Japanese Panel Survey of Consumers (JPSC) data. The JPSC was first conducted in 1993 by randomly selecting young women aged 24-34 years old as Cohort A. Cohort B was added in 1997 for women aged 24-27. In 2003 Cohort C was added for women aged 24-29. In 2008 Cohort D was added for women aged 24-28. The JPSC was conducted every year from 1993 to 2017 or the analysis about the onset of each diagnosed disease, individuals with an established diagnosis were removed.
- The samples utilized in the study are married couples (wife and husband) for 19 waves from 1995 to 2013.

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3 Methods: Model

$$H_i = a + \beta_1 \ln y_i + \beta_2 \ln(y_i / y_i^*) + \beta_X X_i + \varepsilon_i$$
(1)

$$H_{it} = a + \beta_1 \ln y_{it} + \beta_2 \ln(y_{it} / y_{it}^*) + \beta_X X_{it} + v_i + \varepsilon_{it}$$
(2)

$$H_{it} = a + \beta_{Ht} IH_{i(t_{1})} + \beta_{1} \ln y_{it} + \beta_{2} \ln(y_{it} / y_{it}^{*}) + \beta_{X} X_{it} + v_{i} + \varepsilon_{it}$$
(3)

3 Methods: Variables

Dependent variable

- The wife' subjective happiness score (SHS) is utilized as the dependent variable.
- It is a scale variable calculated as "very happy=5, happy=4, normal=3, unhappy=2 and very unhappy=1" Value is transformed into opposite order based on the questionnaire item.

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3 Methods: Main Variables

Table 1 Indices of intro-household bargaining power

Index	Contents			
(1) income gap	ratio of wife income to couple's income			
(2) wage gap	ratio of wife wage to couple's wage			
(3) education gap	gap of wife education level to husband education level			
(4)controlled income (1)	proportion of husband income controlled by wife to total husband income			
(5)controlled income (2)	proportion of husband income controlled by wife to couple income			

Data Sources: by the authors.

3 Methods: Control variables

1. Household income	6. co-resident with parents
2. Inter-household income gap	7. Youngest child age
3. Wife and husband education	8. Number of years in marriage
4. Wife work status	9. House status
5. Husband work status	10. Region and year

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4 Results

Table2 Income gap between wife and husband and wives' happiness

	(1)	(1) Pooling (2)Fixed		(2)Fixed eff	fect		(3) Random effect	
	coef	ff. S.E		coeff.	S.E.		coeff.	S.E
Income gap between wife and hu	0.15	36 ** 0.056	7	-0.192 **	0.075	F	-0.155 ***	0.060
Household income(ref.Income fir								
Income second quintile	0.04	10 ** ⁷ 0.019	₹	0.013	0.022	F	0.032	0.020
Income third quintile	F 0.01	7 0.021	7	0.022	0.026	F	0.021	0.022
Income fourth quintile	0.07	73 **** 0.024	₹	0.074 **	0.032	F	0.083 ***	0.026
Income fifth quintile	F 0.10)5 *** [*] 0.032	7	0.113 **	0.042	₹.	0.115 *** [*]	0.034
Household income gap (ref. I1<)	(0)							
I1>I0	-0.01	6 0.020	₹	-0.008	0.026	7	- 0.012	0.021
t-1Happiness (ref. Very unhappy))							
Very happy		25 **** 0.001	₹	0.007 **	0.001	F	0.020 ***	0.001
Нарру	0.01	9 *** 0.001	₹	0.006 **	0.001	7	0.015 *** [*]	0.001
Normal	0.01	2 *** 0.001	₹	0.004 **	0.001	₹	0.009 ***	0.001
Unhappy	F 0.00)7 *** [*] 0.001	7	0.002 **	0.001	7	0.005 ***	0.001
Control variables	Ye	es		Yes			Yes	

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Table3 Summary of the results for five types of intra-household bargaining power indices

Model	Coeff.	S.E.
Model 1: income gap between wife and husband	-0.192 **	0.075
Model 2: wage gap between wife and husband Model 3: education gap between wife and husband	-0.201 *** -0.028 ***	0.074 0.006
Model 4: proportion of controlled husband income by wife to total husband income	0.067 **	0.033
Model 5: proportion of controlled husband income by wife to couple income	0.102 **	0.040

- when the income gap between wife and husband increases, the wife's happiness may decrease.
- when the wage gap between wife and husband increases, the wife's happiness may decrease.
- when the education attainment level is higher for the wife than her husband the wife's happiness may decrease.
- when the proportion of the husband's income controlled by the wife increases, the wife may be happier.

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Table4 Summary of the results for intra-household bargaining power by married working women and housewife groups

Model	coeff.	S.E.
Model 1: income gap between wife and husband		
a: married working women	-0.307 ***	0.102
b: housewife	0.157	0.149
Model 2 : education gap between wife and husband		
a: married working women	-0.029 ***	0.008
b: housewife	-0.025 ***	0.010
Model 3: proportion of controlled husband income by wife to total husband income		
a: married working women	0.098 **	0.046
b: housewife	0.052	0.056
Model 4: proportion of controlled husband income by wife to couple income		
a: married working women	0.154 ***	0.058
b: housewife	0.055	0.065

- The effects of the intra-household bargaining power gap between wife and husband on happiness are greater for the married working women group than for the housewife group.
- It indicates that in Japan the traditional gender role consciousness "men for work, women for family" may influence married women's happiness and as a result, the work-family conflict for working married women may be severe.

5 Conclusions

Main findings:

- When absolute income, relative household income, and other factors are constant, the income gap, wage gap and education gap between wife and husband negatively affects the level of happiness of married Japanese women. If a higher proportion of the husband's income is controlled by the wife or the total household income increases, this can positively affect the level of happiness of married Japanese women.
- The effects of the intra-household bargaining power gap between wife and husband on happiness are greater for the married working women group than for the housewife group.

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Discussion and Policy implications

- It indicates that in Japan the traditional gender role consciousness "men for work, women for family" may influence married women's happiness and as a result, the work-family conflict for working married women may be severe.
- Even though wives labor participation is increasing, the traditional pattern of division of housework is unchanged and wives do most of the housework in Japan. The intra-household gender segregation of housework may explain this phenomenon (Ma, 2007; Tsutsui, 2013; 2016).
- Baxter and Tai, (2016) found that compared to the less housework gender gap group, the gender gap group with more housework is likely to experience greater family conflict, more time stress and less marital satisfaction.
- Inglehart, and Baker (2000), Constantin, and Voicu (2015), and Inglehart, and Norris (2003) indicate that not only is there a difference in the time use of labor supply and housework, but gender role attitudes also differ by country according to the World Value Survey data.

Discussion and Policy implications

- The government promotes policies to keep married women working but the proportion of female regular workers is still small, and the female labor participation rate is smaller for Japan than for other developed countries.
- The implementation of labor and family policies to mitigate work-family conflict presents an important challenge for the Japanese government.
- The husband's support with housework, elder care and child care affects the wife's well-being and change in gender roles may usefully be promoted by the Japanese government

The implementation and enforcement of a work-life balance policy for both men and women is likely to increase national well-being in Japan.

Limitations

- First, as in most of previous studies, the focus was on how baseline SP affected health outcomes in follow-up years, which led us to disregard the influence of the change of SP on health. This limitation is expected to become more serious, if longitudinal data obtained from longer follow-up years are available.
- Second, related to the first point, the two-way causation between SP and health was not fully investigated, even if the LV method was used. Engagement in SP will improve health, which in turn will promote SP. This positive feedback seems to have amplified the observed association between baseline SP on health outcomes at follow-ups. (IV method)
- Third, CHARLS dataset consists of individuals aged 45 years and older at baseline, leaving the association between SP and health unexamined for younger generation.
- The mechanism about the impact of SP on well-being should be investigated in the future.

Thank you very much for your attention!

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