# Son Preference, Parental Satisfaction, and Sex Ratio Transition

Junji Kageyama<sup>1</sup>, Risa Hagiwara<sup>1</sup>, Kazuma Sato<sup>2</sup>, and Eriko Teramura<sup>1</sup>

<sup>1</sup> Meikai University, <sup>2</sup> Takushoku University

Wittgenstein Centre Conference 2019 "Demographic aspects of human wellbeing" November 12, 2019

This study is supported by Grant-in-Aid for Scientific Research from the Japan Society for the Promotion of Science (263880243, 17KT0037).

#### **General Question**

• Does having sons translate into more satisfaction in a society where sons are preferred to daughters?

# Country & Data

- South Korea
  - Nice satisfaction data are available
  - Sex ratio at birth is high  $\rightarrow$  Sign of son preference



Figure 1: Change in SRB in Korea

# **Specific Questions**

- Can we capture son preference using satisfaction data?
- If so, in which domains of life, e.g., financial domain, family domain, social domain, do sons make the parents more satisfied?
- Are the results obtained here consistent with the sex ratio transition (the rise and the fall of SRB)?

### Literature

- Lee et. al. (2013)
  - Cross-sectional data targeted for the elderly in one particular island in South Korea.
  - Mixed gender preference
- Margolis & Myrskyla (2016)
  - German and British panel data
  - Mixed gender preference

### Literature

- This study
  - Examines the impact of having sons on parental satisfaction using national-level panel data in a country with son preference,
  - Gets into the sources of son preference with the domain of life approach, and
  - Checks the consistency with the sex ratio transition.

# Main Results

- At the timing of birth, sons better satisfy parents in the domains of income and relative relations.
- No advantage is found for daughters at the timing of birth.
- The results provide a hint for understanding the full cycle of the sex ratio transition.

### Korean Labor & Income Panel Study

- Wave 1 in 1998, Wave 17 in 2014
- Overall Life Satisfaction (5-point scale)
- Domain-specific Satisfaction (5-point scale)
  - household income, family relations, leisure activities, housing environment, relations with relatives, and social relations
- This study uses
  - Married individuals aged 45 or less
  - 61,851 observations

### 1<sup>st</sup> Regression Analysis: Fertility Behavior

- Aim: to test if the probability of progressing to the next parity is higher for parents with only daughters than for parents with only sons.
- Result: Yes  $\rightarrow$  consistent with son preference

# Children	One	Two
Only daughters	1.05	5.38***
Both daughters and sons		1.32

 RE Logit model. Ref: Only sons. Demo-socioeconomic variables are controlled. Odds ratio for progressing to the next parity.
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1.</li>

# 2<sup>nd</sup> Regression Analysis : Birth and Parenthood on Satisfaction

• Aim: to test the impacts of child birth and parenthood on satisfaction while controlling for the gender of children.

Domains	Overall Life	Income	Family	Leisure	House- hold	Relative Relation	Social Relation
Birth	.052***	001	.046***	009	.040**	.035**	.044***
+ Son Birth	.007	.062**	008	.020	.009	.049**	.020
Parenthood	037**	037*	.017	171***	056***	.004	032*
+ Son PH	049***	013	013	029	023	053***	035**

FE OLS model. Demo-socioeconomic variables are controlled.
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1.</li>

# 2<sup>nd</sup> Regression Analysis Result 1: Birth on Satisfaction

- At the timing of birth, sons better satisfy parents in the domains of income and relative relations.
- No advantage is found for daughters.

Domains	Overall Life	Income	Family	Leisure	House- hold	Relative Relation	Social Relation
Birth	.052***	001	.046***	009	.040**	.035**	.044***
+ Son Birth	.007	.062**	008	.020	.009	.049**	.020
Parenthood	037**	037*	.017	171***	056***	.004	032*
+ Son PH	049***	013	013	029	023	053***	035**

FE OLS model. Demo-socioeconomic variables are controlled.
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1.</li>

# 2<sup>nd</sup> Regression Analysis Result 2: Parenthood on Satisfaction

- Being a parent of sons lowers satisfaction in overall life and in the domains of relative and social relations.
- No disadvantage is found for daughters.

Domains	Overall Life	Income	Family	Leisure	House- hold	Relative Relation	Social Relation
Birth	.052***	001	.046***	009	.040**	.035**	.044***
+ Son Birth	.007	.062**	008	.020	.009	.049**	.020
Parenthood	037**	037*	.017	171***	056***	.004	032*
+ Son PH	049***	013	013	029	023	053***	035**

FE OLS model. Demo-socioeconomic variables are controlled.
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1.</li>

#### Remarks 1: Son Preference

- Son preference has its roots in the domains of income and relations with relatives.
  - This supports the idea that son preference derives from parental expectations that sons financially support the family, including aged parents, and represent the family in relative networks.
- However, the positive impact of having sons does not last long.
  - Overly high expectation? Boys are just terrible?

### 3<sup>rd</sup> Regression Analysis : Change in Son Preference

- Aim: to test if the impacts of having sons diminished.
- Top: 1<sup>st</sup> half. Bottom: 2<sup>nd</sup> half.
- Results: The positive impacts of son birth disappeared in the  $2^{nd}$  half.  $\rightarrow$  consistent with the fall in SRB

Domains	Overall Life	Income	Family	Leisure	House- hold	Relative Relation	Social Relation
Birth	0.0523*	-0.0214	0.0282	-0.00694	0.0254	0.0112	0.0160
+ Son Birth	-0.00556	0.0976**	-0.0112	0.0179	0.0355	0.0763*	0.0761**
Birth	0.0528**	0.0300	0.0578***	0.00856	0.0433	0.0591***	0.0644***
+ Son Birth	0.0159	-0.00281	-0.0299	0.00912	-0.0142	-0.00376	-0.0445

#### Remarks 2: Sex Ratio Transition

- Economic development ignites the sex ratio transition.
  - 1) Low fertility  $\rightarrow$  raises SRB in a country with son preference and prenatal sex-selective technology.
  - 2) Socioeconomic changes (e.g., introduction of SS)  $\rightarrow$  expected roles of sons less valuable

 $\rightarrow$  weaker son preference  $\rightarrow$  reduces SRB

 The ignition is the same, but the time lag in its impacts generates the rise and the fall in SRB.

# Thank you

Junji Kageyama kagejun@gmail.com