Ultra-low Fertility in East Asia: “Babymaking machines” going on strike?

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What babymaking machines?!

“Health Minister Hakuo Yanagisawa, 71, in January publicly described women as "baby-making machines" and suggested Japan had a birthrate problem because women were failing in their duty to produce children. In November, Hakubun Shimomura, 52, one of Prime Minister Shinzo Abe's top aides, said the country could easily address a national shortage of public daycare if women would simply "stay at home and raise their children."

(Washington Post, March 2007)

- **Finger-pointing and scapegoat?**
  Derogatory terms for unmarried women above age 30: “leftover women”, “defeated dogs”, “single parasite”, “culprit of national security problems”, etc.

- **Rigid patriarchal family** and cultural system that can’t keep pace with women’s rising status & respect their basic rights
East Asian Families

- **A few facts about East Asia**
  - East Asia contains 1/5 of world population
    - Asia = 60% of the world’s population; 1/3 of this share is East Asia
  - Incredible rapid decline in fertility with limited signs of reversal
  - Unprecedented and persistent low fertility in one of the most family-oriented social contexts
  - Remarkably rapid economic development and yet a region with a deep-rooted Confucian culture system:
    1. women’s subordinate role;
    2. traditional family values/obligations;
    3. collectivist norm that constrain individual behaviors and options
    4. xenophobic value that lauds ethnic homogeneity;
The Scope of East Asia

- **The scope of East Asia** (Population=1.6 billions)
  - **Population size:** China (1.4 billions), Hong Kong (7.4 millions), Japan (127 millions), South Korea (51.5 millions), and Taiwan (23.5 millions)
  - **GDP per capita (nominal):** China ($8,643), Hong Kong ($46,080), Japan ($38,448), Korea ($29,938), and Taiwan ($24,292) (IMF 2017)
  - Mongolia and North Korea are less studied due to data availability. Both with PTFR of ~2 children

- **Singapore?**
  - Often juxtaposed with other East Asian countries due to its impressive economic development, Confucian culture, son preference, and equally fast-declining fertility over the past decades.
  - But strictly speaking it’s located in Southeast Asia
Overview of East Asian fertility

- Rapid fertility decline since mid-20th century, dipping down to below replacement-level in mid-1980, except China

PTFR in South Korea:
- 1.05 (2017)
- 0.96 (2018)

Historical records:
- 0.89 in Taiwan, 2010
- 0.90 in Hong Kong, 2003

Data sources:
- World Bank https://data.worldbank.org/indicator/SP.DYN.TFRT.IN/
- Department of household registration, Ministry of the Interior, Taiwan https://www.ris.gov.tw/app/portal/346
Overview of East Asian fertility

The emergence of son preferences since 1980

Data source: National Bureau of Statistics in China; vital statistics of Japan and South Korea; Census and Statistics Department, Hong Kong; Department of Household Registration, Taiwan
Overview of East Asian fertility

% of age 25-29 population with tertiary education

Data source: Barro and Lee 2018
Overview of East Asian fertility

Female Labor Force Participation, 1990-2016

Korea

Japan

Taiwan

Data source: International Labor Organization
Overview of East Asian Fertility

- Marriage delayed but also marriage foregone, except for China

![Mean age at marriage](chart)

![% never married men at age 50](chart)

![% never married women at age 50](chart)
Overview of East Asian Fertility

- Why do we care about marriage when studying fertility in East Asia?
  - Marriage is still closely linked to fertility

Decomposition of fertility changes in Taiwan, 1975-2015 (PTFR: 3.1 → 1.18)
Overview of East Asian Fertility

- So, are there NO babies outside of marriage in East Asia?
  - Circa 2015, very low rates of non-marital births (NMB):
    - 1.5% in South Korea
    - 2% in Japan
    - 4% in Taiwan
    - 8% in Hong Kong
  
  No statistics for China, yet likely also extremely low due to traditional family values and stigma for NMB.

- However, rising % of pre-nuptial pregnancies (PNP) (or bridal pregnancy, BP) have been observed in all these countries.
Overview of East Asian Fertility

% bridal pregnancies have increased substantially over the past decades

% births within 8 months after marriage

Data sources:
- Ministry of Health, Labor and Welfare https://www.mhlw.go.jp/toukei/saikin/hw/jinkou/tokusyu/syussyo06/syussyo2.html#02
- Birth registration data and Statistical Yearbook of Taiwan
Overview of East Asian Fertility

- With pre-marital conceptions rising, what about cohabitation?
  - Cohabitation in East Asia has also been rising over time, but its prevalence seems to be much lower than in Europe.
  - Limited data on % of ever cohabited in most East Asian societies
    - Japan 2004: 10-15%
    - Taiwan 2004: ~20%

Data sources: Tsuya 2006; Yu & Xie (2015); KAP survey of Taiwan 1998 & 2004
Causes of Ultra-Low Fertility

- What factors led to such changes in fertility and marriage in East Asia?
  - Economic development, educational expansion, rising female labor market attachment ➔ delayed union formation & higher opportunity cost
  - Tempo effects provide partial explanations ➔ substantial quantum changes
  - Childcare and education ➔ High expenses on child-rearing
  - Delayed policy responses ➔ work-family conflict
  - Deteriorating labor market conditions ➔ unemployment, precarious work
  - **Stalled gender revolution** ➔ persistent patriarchal values
    - Lowers the likelihood of compatible couples
    - Exacerbates work-and-family conflict, particularly for women
    - Affects division of labor at home
    - Negative impact on policy effectiveness
Patriarchy and division of labor: Women’s Role at Home

- Male-breadwinner model: women still shoulder the bulk of domestic chores with their changing social roles and rising status

The gender gap is closing due to decreasing women’s hours and rising men’s input

Sources: Survey on Time Use and Leisure Activities, Japan; Hsu (2008); Kim (2017); Hsiao (2005); Yang (2017)
Patriarchy and family policy: Why pronatalist policies didn’t work?

In the case of Taiwan:

- Too much focus on raising fertility, but not on **declining marriage rates** and potential aversion of childbearing pressure

- **Parental leave** (2002, “a visible yet unreachable benefit”)
  - Repercussions for women
  - Men discouraged by traditional gender-role values
  - Only 3% of new parents take 2-year leave; 60% had a 6-month leave
    - % men taking leave: < 5% in 2006; 17% in 2017
    - % new parents taking parental leave: from ~¼ in 2009 to ~1/2 in 2017
  - Salary gap between men and women
  - Men’s economic burden & persistent male-breadwinner value
Confucian Culture and Patriarchy

- Confucian culture stresses the importance of structure and hierarchy in social relationships and values a patrilineal family system
  → Such family lineage that continued along male descendants is often associated with practices that reinforces patriarchy:

  - **Virilocal living arrangements after marriage**
    - Women adapting to husband’s family & shoulder the care of parents-in-law
    - Investment in daughters thus considered expensive and unnecessary

  - **Son preferences**
    Ancestral worship, inheritance, passing down family name, old age security, etc.
    → creating tremendous pressure on married women

  - **Subordinate role of women**
    The *three obediences for a woman* means women should obey her father as a daughter in the natal home, her husband as a wife in a marriage, and her sons in widowhood
Confucian Culture and Patriarchy

- **Subordinate role of women: the case of foreign migrant wives**
  - Migrant wives come from neighboring less developed countries
  - Common anecdotes about in-law issues and maltreatments but they were expected to endure such treatments because of the filial piety → runaway migrant wives!
  - Migrant brides who married native Taiwanese, Japanese, and Korea men have **lower** fertility than their native counterparts (Yang et al. 2012; Yamauchi 2010; Korekawa 2017; Kim 2018)

Data source: stacked 1979-2016 WMFE surveys, married women (N=449,322)
Confucian Culture and Patriarchy

Why lower fertility among migrants than native women?

- The fertility of migrant women is generally higher than native women in many developed society, but **not** in East Asia. **WHY?**
  - Prejudice and discrimination exacerbate women’s subordinate role in lower-SES marital families
  - Maltreatments in martial families and complaints about being viewed as “childbearing machine” abound
  - Lower fertility among migrants persist even when spousal age gap is controlled for

**The Paradox:** Why do migrant women who often did not have a high school degree and have limited career prospect have lower fertility than native women in East Asia?
A stalled gender revolution under the Confucian doctrines?

Are there changes in attitudes and values?

<table>
<thead>
<tr>
<th></th>
<th>1995</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Men</strong></td>
<td>27,94</td>
<td>24,41</td>
</tr>
<tr>
<td><strong>Women</strong></td>
<td>24,64</td>
<td>28,08</td>
</tr>
<tr>
<td><strong>Newlyweds should have their own residence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Men</strong></td>
<td>49,92</td>
<td>46,03</td>
</tr>
<tr>
<td><strong>Women</strong></td>
<td>54,32</td>
<td>59,32</td>
</tr>
</tbody>
</table>

Data source: Taiwan Social Change Survey
A stalled gender revolution under the Confucian doctrines?

■ Are there changes in attitudes and values?

It is fine to have a quarrel with the mother-in-law when there is disagreements
(1 very wrong- 5 not wrong at all)

<table>
<thead>
<tr>
<th></th>
<th>Mean score</th>
<th>Total</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>3.57</td>
<td>3.49</td>
<td>3.65</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>2.16</td>
<td>2.12</td>
<td>2.20</td>
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</table>

It is fine to get a divorce when couples have compatibility problems
(1 very wrong- 5 not wrong at all)

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</thead>
<tbody>
<tr>
<td>1985</td>
<td>4.20</td>
<td>4.07</td>
<td>4.34</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>2.48</td>
<td>2.46</td>
<td>2.50</td>
<td></td>
</tr>
</tbody>
</table>

Data source: Taiwan Social Change Survey
A stalled gender revolution under the Confucian doctrines?

- Son preferences worsen under the “fertility squeeze” caused by ultra-low fertility?

Son preference slows down progress in gender equality and fertility would likely remain very low.

Data source: Taiwan Social Change Survey
The Future of Marriage (and Fertility)?

- Why do fewer people marry (and have children) in East Asia?
  - The common cited reason of “haven’t met a suitable partner” among singles
    → What factors interfere with compatibility of single men and women?
    → Persistent hypergamy norm and resistant male pride?
  - The unexplained “mate-searching” and “couple dynamics” in low-fertility East Asian contexts → need more qualitative research
  - Virilocal marriage practice, son preference, and persisting gender discrimination at workplaces could have prompted women to invest more time at work that is at odds with forming unions and childbearing
  - Lack of ideal marriage role-models in parental generations
The Future of Marriage (and Fertility)?

Proportion never in union at age 45-49, 2010-2050 holding contemporary forces of attraction by age-only (solid line) and by age and education (dashed line)

The Future of Marriage (and Fertility)?

- Fertility will likely stay low if (1) NMB remains rare, and (2) society-at-large is slow in making traditional family practices adaptive to women’s new roles.

- Unlike in Europe, “replacement migration” is rarely considered as a policy option → What else can be done?

- In addition to pro-natalist policies, what governments should do to improve the welfare of individuals in ultra-low fertility societies?
  - Social infrastructure needed for rising share of lone-person households?
  - Potential social consequences of excessive unmarried low-SES bachelors?
  - The implications of thinning kinship?

- If the best-educated women have higher risk of childlessness, does it mean that there will be an evolutionary selection of genes from mothers with lower education?
* Special thanks goes to Mr. Chen-Hao Hsu for excellent research assistance! *

Thank you for your attention!