Déséquilibre du sex ratio en Chine et en Inde

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Outline

• Missing women and sex ratio
• Demographic masculinization in Asia
• A framework for understanding birth masculinity: technology, patriarchy, demography
• A tragedy of the commons and its implications

“Missing women” in Asia

• A. Sen 1990
• Sex differentials in mortality during the 20th century
• Female infanticide and excess child mortality among girls

“Missing  women” in 2000
(population in millions)

Missing women in 2000
(population in millions)

<table>
<thead>
<tr>
<th>Actual Number of Women</th>
<th>Actual Sex Ratio</th>
<th>Expected Sex Ratio</th>
<th>Missing Women</th>
<th>Missing Women</th>
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<tbody>
<tr>
<td>China</td>
<td>112.2</td>
<td>1.067</td>
<td>1.000</td>
<td>1.067</td>
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<tr>
<td>Taiwan</td>
<td>10.8</td>
<td>1.049</td>
<td>1.002</td>
<td>1.049</td>
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<td>South Korea</td>
<td>52.2</td>
<td>1.008</td>
<td>1.000</td>
<td>1.008</td>
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<td>India</td>
<td>485.7</td>
<td>1.072</td>
<td>0.993</td>
<td>1.072</td>
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<tr>
<td>Pakistan</td>
<td>62.7</td>
<td>1.081</td>
<td>1.000</td>
<td>1.081</td>
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<tr>
<td>Bangladesh</td>
<td>53.4</td>
<td>1.038</td>
<td>0.996</td>
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<tr>
<td>Nepal</td>
<td>11.6</td>
<td>0.907</td>
<td>0.992</td>
<td>0.907</td>
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<tr>
<td>Sri Lanka</td>
<td>8.6</td>
<td>1.005</td>
<td>1.000</td>
<td>1.005</td>
</tr>
<tr>
<td>West Asia</td>
<td>92.0</td>
<td>1.083</td>
<td>1.002</td>
<td>1.083</td>
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<tr>
<td>of which: Turkey</td>
<td>27.9</td>
<td>1.027</td>
<td>1.000</td>
<td>1.027</td>
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<td>Syria</td>
<td>6.7</td>
<td>1.047</td>
<td>1.016</td>
<td>1.047</td>
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<tr>
<td>Afghanistan</td>
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<td>1.054</td>
<td>1.064</td>
<td>1.054</td>
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<tr>
<td>Iran</td>
<td>29.5</td>
<td>1.033</td>
<td>0.996</td>
<td>1.033</td>
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<tr>
<td>Egypt</td>
<td>29.0</td>
<td>1.048</td>
<td>1.005</td>
<td>1.048</td>
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<tr>
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<td>1.058</td>
<td>1.005</td>
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<td>1.000</td>
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<td>Sub-Saharan Africa</td>
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<td>0.970</td>
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<td>Africa</td>
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<td>World</td>
<td>1794.4</td>
<td>1.037</td>
<td>0.983</td>
<td>1.037</td>
</tr>
</tbody>
</table>

Sex Ratio

• Sex ratio = men/ women* 100
• E.g. Sex ratio = 112 ↔ 12% excess men
• Sex ratio at birth =105 male births per 100 female births
• More boys are born than girls
• Biological invariant with minor variations
• Excess male mortality increasing with age
• Sex ratio down to 100 between age 20 and 50

Child sex ratio in China, India, and elsewhere

Sources: census estimates, United Nations
Demographic masculinisation

What do we observe across Asia?
- Increase in child sex ratio: from 100-105 to 110-130
- Gradual masculinisation of population structures
- Masculinisation of births (SRB = sex ratio at birth)

Demographic masculinisation

What is masculinization about?
- Excess child mortality among girls is frequent (China), but its overall impact tends to reduce with lower mortality
- Female infanticide is detectable but on the wane: only isolated traces found across Asia

Demographic masculinisation

The real culprit is the surge in sex ratio at birth (SRB) in many Asian countries
- Rising from 105 (normal level) towards 110-130 (5 to 25% excess male births)
- Caused by sex selective abortions: prenatal sex diagnosis followed by abortion of female foetuses especially among later births (parities 2, 3+)

Sex ratio at birth in Asia

SRB in selected countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Regions</th>
<th>SRB</th>
<th>date</th>
<th>Data type</th>
</tr>
</thead>
<tbody>
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<td>Armenia</td>
<td>Entire country</td>
<td>115.8</td>
<td>2005</td>
<td>Civil registration</td>
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<tr>
<td>Azerbaijan</td>
<td>Entire country</td>
<td>116.0</td>
<td>2005</td>
<td>Civil registration</td>
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<tr>
<td>Georgia</td>
<td>Entire country</td>
<td>110.1</td>
<td>2007</td>
<td>Civil registration</td>
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<tr>
<td>China</td>
<td>Mainland</td>
<td>120.5</td>
<td>2004</td>
<td>1% survey</td>
</tr>
<tr>
<td></td>
<td>Jiangxi</td>
<td>137.1</td>
<td>2004</td>
<td>1% survey</td>
</tr>
<tr>
<td></td>
<td>Anhui</td>
<td>132.2</td>
<td>2004</td>
<td>1% survey</td>
</tr>
<tr>
<td></td>
<td>Taiwan</td>
<td>109.6</td>
<td>2007</td>
<td>Civil registration</td>
</tr>
<tr>
<td>India</td>
<td>Entire country</td>
<td>109.0</td>
<td>2000-06</td>
<td>NFHS-3 survey</td>
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<td></td>
<td>Punjab</td>
<td>123.8</td>
<td>2004-06</td>
<td>SRS</td>
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<tr>
<td>Vietnam</td>
<td>Entire country</td>
<td>110.6</td>
<td>2008</td>
<td>2009 census</td>
</tr>
</tbody>
</table>
Sex ratio enfantin

1 - 20
1 - 15
1 - 10
0 - 100

Child sex ratio variations as a map of local gender preference

Vietnam in 2009

The three preconditions of modern sex selection: ability, readiness and low fertility pressure

Why are girls disappearing?
The three preconditions of modern sex selection: ability, readiness and low fertility pressure

Women can do it: access to the new technology

- Old discriminatory technology: infanticide, neglect, rituals, etc.
- Emergence of supply of modern prenatal diagnosis from the 1980s
- Combination with abortion facilities
- Higher living standards, better healthcare infrastructures
- Improved reproductive health
**Sex selective abortions**

- Compared to neglect or infanticide
- A very efficient method
- A "modern" safe, medical procedure
- Costs decreasing with time
- Limited social visibility
- Shortened unnecessary pregnancies

**Women have to do it**

- Couples need to do it: low fertility and risk of remaining sonless
  - Average fertility
    - 6 4 2 1.5
  - Probability to remain sonless
    - 1% 6% 24% 34%
  - Tolerance for girls*
    - 83% 75% 50% 33%
    - * Maximum percentage of girls in a family (with at least a boy)

**Couples want to do it: local contexts of gendered preference**

- A large array of ritual, social and economic considerations:
  - Cost of education and care
  - Dowry and marriage costs
  - Patrilineal family and clan/caste/lineage
  - Gender inequality in inheritance and household economy
  - Economic solidarity and old age support
  - Religious and social requirements: ancestors' worship, funerals, etc.

**New methods**

- Preconception selection (Ericsson's method etc.)
- Test of fetal blood (from 5-6 weeks)
- Methods still uncommon in Asia, but which may spread in the future
A general framework

Worrying trends

- Visible rise in birth masculinity in west China, Vietnam, Nepal, central India etc.
- Lower fertility, future prosperity and further diffusion of modern technology may encourage more couples to opt for sex selection

Consequences

- Today: worsening of systematic gender discrimination « from womb to tomb »
- Tomorrow: increasing gender imbalances among adults and serious marriage squeeze in twenty years with yet unpredictable consequences on family arrangements and societies
A typical tragedy of the commons

- Opportunistic behavior among individuals leads to a collective risk.
- While avoiding the birth of girls may sound rational to some today, disturbing the gender balance in society may be detrimental to the entire social fabric in the future.

Male singlehood till 2100

Social adjustments and anticipation

- Violence to women, prostitution, forced marriages, marriage-induced migration.
- Changes in patriarchal norms (towards greater gender symmetry).
- Anticipating the squeeze: investment in social and economic capital, flight, withdrawal, violent behaviour etc.

Male overcrowding

This picture and the following ones are by the Gao Brothers.

Gender-based violence

Same-sex flexibility

This picture and the following ones are by the Gao Brothers.
Investing for the marriage market

Renouncing the marriage market

Avoiding the sex ratio crisis

Scenarios of future sex ratio

Future evolutions

South Korea, 1980-2007

- Fertility is unlikely to rise again... but family planning policies may be relaxed
- Sex selection technology is unlikely to disappear (on the contrary)... but checking illegal sex determination may be feasible
- Son preference is an age-long tradition... but so were many forms of discrimination that have now disappeared
Social change and policy intervention

- Strengthening gender equity
- Women’s increasing access to employment and autonomy
- Weakening of traditional patriarchal structures
- Support to girl-only families
- Regulations of sex selection

Thank you