Socioeconomic and cultural determinants of fertility transition: a comparative micro-level study from Western and Southern Transdanubia (Hungary), 19th and 20th centuries

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Outline

• 1. Introduction
• 2. The area under study
• 3. Data and methods
• 4. Descriptive statistics
• 5. Multivariate analysis
• 6. Conclusion
Introduction

- Little attention paid to non-aggregated data and to micro level
- Two major groups of research:
  - 1) macro-level analyses of aggregated census data or vital statistics
  - 2) family reconstitution studies
- Results of macro-level studies:
  - A. Kovács, L. Thirring, R. Andorka and others tried to identify the regional, cultural (mother tongue, religion) and socio-professional differences in fertility decline
  - The analysis of the data of census 1930 (Kovács 1936, Thirring 1936, 1941) showed important differences between socio-professional groups at the time of the census
  - Comparative analysis of censuses 1930 and 1949 (Thirring 1959) showed a convergence process in fertility by socio-professional groups

=> Our knowledge is rather limited on the fertility differences by socioeconomic group prior to demographic transition and how these differences were modified during the decades of fertility transition
Introduction

• Main results of Hungarian family reconstitution studies:
  – Early family limitation among the land-owning peasantry – one of the characteristic feature of the initial chapter of H. fertility transition
  – Rudolf Andorka (1981, 1987, 1991, 1998): in rural settings the birth control of land-owning peasantry could have been a logical response to impoverishment and to avoid the fragmentation of properties and pauperization
  – the „characteristics” hypothesis: religious differentials will disappear once the proper socioeconomic and demographic variables are taken into account
  – Criticism:
    • Denominational and ethnic background as main explanatory hypothesis
    • Marital fertility and other demographic indicators not detailed by socioeconomic groups
    • Focus on the pre-transitional fertility (until 1895)
    • While the socioeconomic differences were phrased as hypothesis, the actual testing was not carried out
Communities

Bük (W. T.)

- Three villages that united in 1902
- Heterogeneous in terms of religion (Roman Catholics and Lutherans)
- Separate elementary schools maintained by the Lutheran and R.C. Catholic Ch. up until the end of WWII.
- Modernization of the agriculture in the second half of the 19th c. (1865 railway, 1867-69 sugar factory)
- Population increase due to immigration
- Process of social differentiation and growing social inequalities
- End of WWI. (1917-burning of the s.f.) the plant breeder part of the factory functioning until 1930

Vajszló (S. T.)

- „Cultural“ center of the „Ormánság“ region (about 45 small villages) known from the literature as a region where „one-child system“ was dominant
- Heterogeneous in terms of religion (Roman Catholics and Calvinists)
- Elementary schools maintained by the state and R.C. Ch. from 1871 onwards
- Privileged settlement (country town) until 1871
- Roman Catholic Church Fund as big landowner
- Economic stagnation up until the end of the 19th c.
- Railway 1912
Population development in Bük and Vajszló, 1828-1949
Religious composition in Bük and Vajszló

Bük

Vajszló

- Izr.
- Luth.
- R.C.
- Other
Distribution of breadwinners by broad occupational groups in Bük and Vajszló, 1900-1930
The distribution of breadwinners in agriculture in Bük and Vajszló, 1900-1930
Data

- Family reconstitution database
  - Record linkage of baptism, marriage and death records from Lutheran, Calvinist and Roman Catholic parish registers (1800-1895) and civil registers (1895-1980)
  - Individual records of census 1850 and 1857 (Bük)
  - Individual records of the electoral registers (1861-1949)
  - 1890 family histories reconstructed for the period 1840-1940 (Bük)
  - Database is under construction in case of Vajszló

- SES reconstructed from occupational informations of parish and electoral registers and censuses

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<thead>
<tr>
<th>HISCLASS</th>
<th>SES</th>
<th>Exemples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-6</td>
<td>High status</td>
<td>Higher managers, higher professionals, lower professionals, clerical and sales, lower clerical and sales</td>
</tr>
<tr>
<td>8</td>
<td>Farmer</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Artisan/skilled</td>
<td>Craftsmen, blacksmith, crofters, carpenters etc.</td>
</tr>
<tr>
<td>9-12</td>
<td>Labourer</td>
<td>Day labourers, workers, farm servants etc.</td>
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Methods

• Descriptive statistics
  – General marital fertility rates, age specific marital fertility rates, mean birth intervals etc. taking into account differences by period, SES and religious group

• Event History (Piecewise Constant Exponential) models with shared frailty at the individual (women) level, separately for the first-, and second and higher order births
  – Basic and extended model (including interaction term between SES*time period)
  – Control variables: age of woman, time period, SES, religious group, life status of pr. born child
General marital fertility rates (births to married women divided by the person years at risk for married women 15-49 years) in Bük (1840-1948) and Vajszló (1900-1946)
Age specific marital fertility rates by period in Bük (1840-1948) and Vajszló (1900-1946)

Bük

Vajszló

1840-1879
1880-1914
1914-1918
1919-1948

Per thousand


Per thousand

General marital fertility by religious groups in Bük (1840-1948) and Vajszló (1900-1946)
General marital fertility (15-49) by SES in Bük (1840-1948)
Net effects of period on fertility outcomes by socioeconomic status, Bük 1840-1940

First births

- Labourer
- Skilled
- Farmer
- High st.

Relative risks

Higher order births

- Labourer
- Skilled
- Farmer
- High st.

Relative risks
Net effects of socioeconomic status on fertility outcomes by period, Bük 1840-1940

First births

Higher order births

Relative risks

1840-1869 1870-1889 1890-1914 1920-1939

Labourer
Skilled
Farmer
High status
Conclusion

• SES more important than religious affiliation

• The „characteristics” hypothesis confirmed

• Fertility transition as an innovation-diffusion process: early elite decline followed by the other social groups

• High fertility differences existed at the end of the study period between higher and lower social strata

• In the future: interaction of religious group and SES in order to test in a more effective way the innovation – diffusion hypothesis