Social Homogamy in the Canton of Luzern (Switzerland, 1834-75)

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Overview

1. Introduction
2. The Canton of Luzern
3. Research Questions and Hypotheses
4. Data and Variables
5. Method
6. Results
7. Conclusion
1 Introduction: The Broader Project

- Intergenerational social mobility in Switzerland
  — 20th century: gender differences; international comparison.
  — 19th century:
    Industrialized (Glarus) vs. mainly rural (Luzern) area;
    General Trends.

- Social Homogamy:
  Most important path of status transmission for women.
1 Introduction: Marriage Registers (1834-75)

Social Homogamy in the Canton of Luzern (Switzerland, 1834-75)
2 The Canton of Luzern (19th Century, I)

Source: Dufour, 1855.
2 The Canton of Luzern (19th Century, II)

> Political:
  — Until 1847: Sovereign state within the Swiss Confederation
  — 1831-47: Oscillation between liberal and conservative poles (culture war)
  — After 1847/48: Partially forced and conflict-laden integration into the liberal federal state of Switzerland (Bossard-Borner, 2010).

> Economy:
  — Mainly rural canton with the city of Luzern as a clear capitol.
  — Some industry:
    Mainly around Luzern and in the Wiggertal (north-east).
  — Acceleration with the connections to the railway system 1856 and 1864
  — With this: strong growth of tourism (2. half of 19th century) (Dubler, 1983; Schnider, 1996)

> Marriage: Restricted access to marriage for poor.
  Result: Highest illegitimacy rate in Switzerland (Head-König, 1993).

> City of Luzern: Strong growth, driven by immigration with a high share of female domestic workers (Balthasar, 1988; Head-König, 1999).
3 Research Questions and Hypotheses

Research Questions:

— Did social homogamy differ between area (no industry, some industry, city of Luzern)?

— Did it change over time?

— Can social homogamy be explained by individual and contextual factors?
## 3 Research Questions and Hypotheses: Clusters (I)

<table>
<thead>
<tr>
<th>Clusters</th>
<th>Aspects</th>
<th>Variables</th>
<th>Effect on homogamy</th>
<th>Change of aspect</th>
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<td>Personal preferences</td>
<td>Notions of romantic love</td>
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Source: van Leeuwen & Maas, 2005, p. 21
### 3 Research Questions and Hypotheses: Clusters (II)

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<td>Parental control</td>
<td>Father: 1st sector</td>
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Source: van Leeuwen & Maas, 2005, p. 21
### 3 Research Questions and Hypotheses: Clusters (II)

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<td>Modern labor market</td>
<td>“Some industry” area / City of Luzern</td>
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<tr>
<td>Marriage horizons</td>
<td>Means of transportation</td>
<td>Nearby train station</td>
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<td>Locally rooted: Bride</td>
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<td>Locally rooted: Groom</td>
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<td>Social pressure</td>
<td>Parental control</td>
<td>1st sector: Bride’s father</td>
<td>+</td>
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<td>Economic independence</td>
<td>Age of Bride</td>
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<td>Age of Groom</td>
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Social Homogamy in the Canton of Luzern (Switzerland, 1834-75)

4 Data and Variables: Sampling (I)

4 Data and Variables: Sampling (II)

> 3 strata:
  — No industry: 25 of 63 parishes
    Two-stage sampling (Jann, 2007).
  — Some industry: all 13 parishes
  — City of Luzern:
    Catholic and protestant parish

> Aim: 750 observations per strata
  — Parish size: Estimation
    (counting 10% of entries).

> Realized: 2 212

> Usable for this study: 1 825
4 Data and Variables: Occupations

> Occupational titles of groom, bride and fathers (rarely: mothers).

> Coded to HISCO (van Leeuwen, Maas, & Miles, 2002).

> Assigned to HISCAM: single dimensional, continuous scale of stratification (Lambert et al., 2013).
  — Version 1.3.1 E (constructed for the period 1800-1890) is used here (HISCAM, 2013).

> Recoded to HISCLASS: Historical class-scheme (van Leeuwen & Maas, 2011).
4 Data and Variables: Occupations (HISCLASS)

Note: most graphs produced with “coefplot” (Jann, 2014).
4 Data and Variables: Covariates by Area and Cohort.

Proportions Railway Station <2.5h

Proportions of Locals

Proportions of 1st Sector Occupations

Median Age of Grooms and Brides
5 Method: Measuring Social Homogamy

Social Homogamy in the Canton of Luzern (Switzerland, 1834-75)

Groom’s father’s HISCAM

Correlation := Social Homogamy

Bride’s father’s HISCAM
5 Method: Multilevel Mixed Effect Model

Groom’s father’s HISCAM

Bride’s father’s HISCAM

Covariates
5 Method: Multilevel Mixed Effect Model

\[
\ln(\text{HISCAM}_{ij}^{bf}) = (\beta_1 + \zeta_{1j}) + \beta_2 \ln(\text{HISCAM}_{ij}^{gf}) + \delta_1 x_{ij1} + \cdots + \delta_k x_{ijK} \\
+ \ln(\text{HISCAM}_{ij}^{gf})(\gamma_1 x_{ij1} + \cdots + \gamma_k x_{ijK}) + \epsilon_{ij}
\]

> \text{HISCAM}_{ij}^{gf}: Bride’s father’s HISCAM

> \text{HISCAM}_{ij}^{bf}: Groom’s father’s HISCAM

> Covariates \((x_{ijk})\):
  
  — Nearby train station (<2.5h)
  — Local bride, local groom
  — First sector occupation (bride’s father, groom’s father)
  — Age: linear and quadratic (bride, groom)
  — Full interaction between type of area and cohorts

> \zeta_{1j}: Random intercept

> Clusters: Parish x cohort
6 Results: Area and cohort

Homogamy by area and cohort (bride's father->groom's father)

<table>
<thead>
<tr>
<th>no industry</th>
<th>some industry</th>
<th>city of Luzern</th>
</tr>
</thead>
<tbody>
<tr>
<td>1834-54</td>
<td>1855-75</td>
<td>1834-54</td>
</tr>
<tr>
<td>Change</td>
<td>Change</td>
<td>Change</td>
</tr>
</tbody>
</table>

Association between bride's father's and groom's father's HISCAM
- Difference of associations between cohorts
- Difference to "some industry"
- Difference to "city of Luzern"
- Difference to "no industry"

Note: Spikes represent 90% (thick) and 95% (thin) confidence intervals
6 Results: Area and cohort

Homogamy by area and cohort (groom's father->bride's father)

<table>
<thead>
<tr>
<th>no industry</th>
<th>some industry</th>
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</thead>
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<tr>
<td>1834-54</td>
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- Association between bride's father's and groom's father's HISCAM
- Difference of associations between cohorts
- Difference to "some industry"
- Difference to "city of Luzern"
- Difference to "no industry"

Note: Spikes represent 90% (thick) and 95% (thin) confidence intervals
6 Results: Explaining Factors (Base Model)

**Main effect**
Bride's father: ln(HISCAM)

**Interactions: Area and cohort**
- Area: No industry (ref.: some industry)
- Area: City of Luzern (ref.: some industry)
- Year of Marriage: 1855-75
  - No industry # 1854-75
  - City of Luzern # 1855-75

**Interactions: Marriage market horizon**
- Close to railway station
- Local (groom)
- Local (bride)

**Interactions: Parental pressure**
Bride's father: 1st sector

**Interactions: Personal autonomy**
- Bride's (centered age)/10
- Bride's sq((centered age)/10)
- Groom's (centered age)/10
- Groom's sq((centered age)/10)

**Note:** Spikes represent 90% (thick line) and 95% (thin line) confidence intervals.

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6 Results: Explaining Factors (Train Station)

Main effect
Bride's father: ln(HISCAM)

Interactions: Area and cohort
Area: No industry (ref.: some industry)
Area: City of Luzern (ref.: some industry)
Year of Marriage: 1855-75
No industry # 1854-75
City of Luzern # 1855-75

Interactions: Marriage market horizon
Close to railway station
Local (groom)
Local (bride)

Interactions: Parental pressure
Bride's father: 1st sector

Interactions: Personal autonomy
Bride's (centered age)/10
Bride's sq((centered age)/10)
Groom's (centered age)/10
Groom's sq((centered age)/10)

Effects on "Bride's Father->Groom's Father"

Note: Spikes represent 90% (thick line) and 95% (thin line) confidence intervals.
6 Results: Explaining Factors (Locals)

Social Homogamy in the Canton of Luzern (Switzerland, 1834-75)

**Main effect**
- Bride's father: \( \ln(\text{HISCAM}) \)

**Interactions: Area and cohort**
- Area: No industry (ref.: some industry)
- Area: City of Luzern (ref.: some industry)
- Year of Marriage: 1855-75
  - No industry # 1854-75
  - City of Luzern # 1855-75

**Interactions: Marriage market horizon**
- Close to railway station
  - Local (groom)
  - Local (bride)

**Interactions: Parental pressure**
- Bride's father: 1st sector

**Interactions: Personal autonomy**
- Bride's (centered age)/10
- Bride's \( \text{sq}((\text{centered age})/10) \)
- Groom's (centered age)/10
- Groom's \( \text{sq}((\text{centered age})/10) \)

Effects on "Bride's Father->Groom's Father"

Note: Spikes represent 90% (thick line) and 95% (thin line) confidence intervals.
6 Results: Explaining Factors (1st Sector)

Effects on "Bride's Father->Groom's Father"

**Main effect**
- Bride's father: ln(HISCAM)

**Interactions: Area and cohort**
- Area: No industry (ref.: some industry)
- Area: City of Luzern (ref.: some industry)
- Year of Marriage: 1855-75
  - No industry # 1854-75
  - City of Luzern # 1855-75

**Interactions: Marriage market horizon**
- Close to railway station
  - Local (groom)
  - Local (bride)

**Interactions: Parental pressure**
- Bride's father: 1st sector

**Interactions: Personal autonomy**
- Bride's (centered age)/10
- Bride's sq((centered age)/10)
- Groom's (centered age)/10
- Groom's sq((centered age)/10)

Note: Spikes represent 90% (thick line) and 95% (thin line) confidence intervals.
6 Results: Explaining Factors (Age)

Main effect
Bride's father: ln(HISCAM)

Interactions: Area and cohort
Area: No industry (ref.: some industry)
Area: City of Luzern (ref.: some industry)
Year of Marriage: 1855-75
No industry # 1854-75
City of Luzern # 1855-75

Interactions: Marriage market horizon
Close to railway station
Local (groom)
Local (bride)

Interactions: Parental pressure
Bride's father: 1st sector

Interactions: Personal autonomy
Bride's (centered age)/10
Bride's sq((centered age)/10)
Groom's (centered age)/10
Groom's sq((centered age)/10)

Effects on "Bride's Father->Groom's Father"

Note: Spikes represent 90% (thick line) and 95% (thin line) confidence intervals.
6 Results: Explaining Factors (Full model)

Main effect
Bride’s father: ln(HISCAM)

Interactions: Area and cohort
Area: No industry (ref.: some industry)
Area: City of Luzern (ref.: some industry)
Year of Marriage: 1855-75
  No industry # 1854-75
  City of Luzern # 1855-75

Interactions: Marriage market horizon
Close to railway station
  Local (groom)
  Local (bride)

Interactions: Parental pressure
Bride’s father: 1st sector

Interactions: Personal autonomy
Bride’s (centered age)/10
  Bride’s sq((centered age)/10)
  Groom’s (centered age)/10
  Groom’s sq((centered age)/10)

Note: Spikes represent 90% (thick line) and 95% (thin line) confidence intervals.
6 Results: Explaining Factors (the other Way)

Social Homogamy in the Canton of Luzern (Switzerland, 1834-75)

**Main effect**
- Groom's father: ln(HISCAM)

**Interactions: Area and cohort**
- Area: No industry (ref.: some industry)
- Area: City of Luzern (ref.: some industry)
- Year of Marriage: 1855-75
- No industry # 1854-75
- City of Luzern # 1855-75

**Interactions: Marriage market horizon**
- Close to railway station
- Local (groom)
- Local (bride)

**Interactions: Parental pressure**
- Groom's father: 1st sector

**Interactions: Personal autonomy**
- Bride's (centered age)/10
- Bride's sq((centered age)/10)
- Groom's (centered age)/10
- Groom's sq((centered age)/10)

**Note:** Spikes represent 90% (thick line) and 95% (thin line) confidence intervals.
6 Results: Explaining Factors (Groom’s Age)

Average Marginal Effects of Groom's Father's ln(HISCAM) on Bride's Father's ln(HISCAM); with 95% CIs
6 Results: Explaining Factors (Bride’s Age)

Average Marginal Effects of Bride's Father's \( \ln(\text{HISCAM}) \) on Groom's Father's \( \ln(\text{HISCAM}) \); with 95% CIs

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Social Homogamy in the Canton of Luzern (Switzerland, 1834-75)

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### 6 Results: Summary

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<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meet someone from another class</td>
<td>Modern labor market</td>
<td>“Some industry” area</td>
<td>-</td>
<td>(+)→(=)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>City of Luzern</td>
<td>-</td>
<td>=→(+)</td>
</tr>
<tr>
<td>Marriage horizons</td>
<td>Means of transportation</td>
<td>Nearby train station</td>
<td>-</td>
<td>0</td>
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<tr>
<td>Migration</td>
<td>Locally rooted: Bride</td>
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<tr>
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<td>Locally rooted: Groom</td>
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<td>+</td>
<td>(+)</td>
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<td>Social pressure</td>
<td>Parental control</td>
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<td>+</td>
<td>+</td>
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<td></td>
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<td>1st sector: Bride’s father</td>
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<td>+</td>
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<tr>
<td>Personal autonomy</td>
<td>Economic independence</td>
<td>Age of bride</td>
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<td></td>
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<td>Age of groom</td>
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</table>
7 Conclusion: Summery

> Change and area:
  
  — No decline of social homogamy; increase in the city of Luzern
  
  — Convergence: No industry / some industry (not robust)
  
  — Divergence: City of Luzern / other areas (not robust)

> Explaining factors:

  — In line with hypotheses (except railway stations); age effects not robust

  — Explains some of the difference between city and countryside
7 Conclusion: Outlook & Open Questions

> Relationship between bride’s father’s and groom’s own status
> More context variables (especially on education)
> Method:
  How to deal with the symmetric nature of parental homogamy?
Thank you!
Social Homogamy in the Canton of Luzern (Switzerland, 1834-75)
References (I)

> **References**
> HISCAM (2013). *HIS-CAM scale version 1.3.1.*
References (I)


4 Data and Variables: Occupations (HISCAM)

Histograms of fathers' HISCAM (version 1.3.1 E)

> HISCAM, 2013; Lambert, Zijdeman, van Leeuwen, Marco H. D., Maas, & Prandy, 2013
4 Data and Variables: Occupations (HISCAM)

Histograms of fathers' ln(HISCAM) (version 1.3.1 E)

- Groom's father: ln(HISCAM)
  - Some industry
  - No industry
  - City of Luzern

- Bride's father: ln(HISCAM)
  - Some industry
  - No industry
  - City of Luzern

> HISCAM, 2013; Lambert, Zijdeman, van Leeuwen, Marco H. D., Maas, & Prandy, 2013
Appendix: Lowess Smoother

Status of bride's father and groom's father: Lowess smoother

- some industry, 1834-54
- no industry, 1834-54
- city of Luzern, 1834-54

- some industry, 1855-75
- no industry, 1855-75
- city of Luzern, 1855-75

bandwidth = .8
Appendix: Additional cohort after 1850

Effects on "Bride's Father->Groom's Father" (add. cohort)

Main effect
- Bride's father: ln(HISCAM)
- Year of Marriage: 1855-63
- Year of Marriage: 1864-75
- Year of Marriage: 1855-75

Interactions: Area and cohort
- Area: No industry (ref.: some industry)
  - No industry # 1855-63
  - No industry # 1864-75
  - No industry # 1854-75
- Area: City of Luzern (ref.: some industry)
  - City of Luzern # 1855-63
  - City of Luzern # 1864-75
  - City of Luzern # 1855-75

Interactions: Marriage market horizon
- Close to railway station
- Local (groom)
- Local (bride)

Interactions: Parental pressure
- Bride's father: 1st sector

Interactions: Personal autonomy
- Bride's (centered age)/10
- Bride's sq((centered age)/10)
- Groom's (centered age)/10
- Groom's sq((centered age)/10)

Note: Spikes represent 90% (thick line) and 95% (thin line) confidence intervals.
Appendix: Additional cohort after 1850 (the other Way)

Effects on "Groom's Father->Bride's Father" (add. cohort)

Main effect
- Groom's father: ln(HISCAM)
- Year of Marriage: 1855-63
- Year of Marriage: 1864-75
- Year of Marriage: 1855-75

Interactions: Area and cohort
- Area: No industry (ref.: some industry)
- Area: City of Luzern (ref.: some industry)
- No industry # 1855-63
- No industry # 1864-75
- No industry # 1855-75
- City of Luzern # 1855-63
- City of Luzern # 1864-75
- City of Luzern # 1855-75

Interactions: Marriage market horizon
- Close to railway station
- Local (groom)
- Local (bride)

Interactions: Parental pressure
- Groom's father: 1st sector

Interactions: Personal autonomy
- Bride's (centered age)/10
- Bride's sq((centered age)/10)
- Groom's (centered age)/10
- Groom's sq((centered age)/10)

Note: Spikes represent 90% (thick line) and 95% (thin line) confidence intervals.
Appendix: Outlook: Bride’s Father -> Groom

Main effect
Bride's father: ln(HISCAM)
Year of Marriage: 1855-75

Interactions: Area and cohort
Area: No industry (ref.: some industry)
Area: City of Luzern (ref.: some industry)
  No industry # 1854-75
  City of Luzern # 1855-75

Interactions: Marriage market horizon
Close to railway station
  Local (groom)
  Local (bride)

Interactions: Parental pressure
Groom's father: 1st sector
Bride's father: 1st sector

Interactions: Personal autonomy
Bride's (centered age)/10
Bride's sq((centered age)/10)
Groom's (centered age)/10
Groom's sq((centered age)/10)

Note: Spikes represent 90% (thick line) and 95% (thin line) confidence intervals.