Couples’ Educational Pairings, Selection into Parenthood, and Second Birth Progressions

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Introduction & Puzzle


- *Homogamous highly educated couples* stand out compared with couples with one highly educated partner: later first births, *higher second* and third birth rates

**Homogamous**: Same (high/high)

**Hypogamous**: She more (she high/he medium)

**Hypergamous**: He more (he high/she medium)
Introduction & Puzzle

**Second Birth Progression Rates by Educational Pairing across Europe**


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Introduction & Puzzle


- **Homogamous highly educated couples** stand out compared with couples with one highly educated partner: later first births, *higher second* and third birth rates

- But why?

  - **Homogamous**: Same (high/high)
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Highly educated homogamous couples: Why may their childbearing behavior differ?

- Previous research has *not yet* tested many mechanisms
  - Housework divisions, gender ideology, income & financial resources appear not to drive the differential (Nitsche 2018, Nitsche and Van Bavel 2017)

- Tertiary educated large and expanding group—hypergamous couples increasingly distant? Artefact?
- Educational Upgrading?
- Unobserved heterogeneity, selectivity into parenthood?
Hypotheses

**H1:** *Educational pairing differentials* in *second birth rates* are present in Finland

**H2:** *Splitting tertiary education into low & high categories* will reveal that hypergamous couples with larger distances (e.g. high-tertiary-medium) are driving the differential

**H3:** Adjusting for *educational upgrading* will reduce the differential

**H4:** Accounting for *unobserved heterogeneity* and selectivity into parenthood will reduce the differential
**DATA**: Finnish register data, 11% random sample of the population.


**METHOD**: Event history models

Models 1-3: *piecewise exponential* with clustered standard errors accounting for multiple unions (29,168 women; 30,879 unions), t₀=time of first birth

Model 4: *piecewise exponential recurrent events model*, birth episodes nested in couples, accounting for unobserved heterogeneity at the couple level (shared frailty) (31,570 women; 47,486 unions), t₀=start of union

- **Model 1**: All mothers at parity one – 9 Pairing categories (H1)
- **Model 2**: All mothers at parity one – 16 Pairing categories (H2)
- **Model 3**: All mothers at parity one – 16 Pairing categories + Dummies for Educational Upgrading (she, he, both) (H3)
- **Model 4**: All women (first and second births) –16 Pairing categories + Dummies for Educational Upgrading (she, he, both) + simultaneous equations/frailty (H4)

**Control variables**: Year of union formation, partners’ age difference, civil status.
# Descriptives

<table>
<thead>
<tr>
<th>EDUCATIONAL PAIRINGS</th>
<th>Her Education</th>
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<tbody>
<tr>
<td></td>
<td>High Tertiary</td>
</tr>
<tr>
<td>His Education</td>
<td></td>
</tr>
<tr>
<td>High Tertiary</td>
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<td>Low Tertiary</td>
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<td>Secondary</td>
<td>2.3</td>
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<tr>
<td>Basic</td>
<td>0.4</td>
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<tr>
<td>Total</td>
<td>9.6</td>
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</tbody>
</table>

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Model 1—Baseline: 9 Pairings

Reference Category: Both Secondary. Model controls for age difference of partners and marital status
Model 2—Low and High Tertiary Education: 16 Pairings

Reference Category: Both Secondary. Model controls for age difference of partners and marital status
Model 3—16 Pairings + Educational Upgrading

Reference Category: Both Secondary. Model controls for age difference of partners and marital status.
Model 4—16 + Up + Unobserved Heterogeneity

Reference Category: Both Secondary. Model controls for age difference of partners and marital status
Summary

- *Educational pairings* have differential second birth rates in Finland; highly educated homogamous couples highest rate (H1 √)

- Homogamous tertiary education (*low or high tertiary*) highest rate, no artefact. Yet nuances by couples’ cumulative education, which clearly plays role in second birth rates (H2 (√))

- *Educational upgrading* is not driving the differential (H3)

- *Unobserved heterogeneity* reduces overall differentials in birth rates somewhat, but is not driving the differentials neither (H4)
Conclusions

- *So what?* Cumulative education capital of couples relevant for second births, important in light of shifts in distribution of educational pairings and declining birth rates in Finland

- *Caveats:* No completed birth histories, selection into unions, timing versus quantum

- *Future work:* will need to explore additional mechanisms
Thank you for your attention

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