Like Father, Like Son

Intergenerational Transmission of Social Inequality in Switzerland

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Outline

Introduction

- Mobility is usually understood as "equality of opportunity" – the outcomes may be unequal, but everyone, regardless of starting point, can have the same opportunity to get a good result. (Hout 2004: 970)

- This gives us a good reason why the study of intergenerational mobility is important.

Current State of Research concerning intergenerational mobility in Switzerland (selection)

- Hadjar and Berger (2010): Dauerhafte Bildungsungleichheiten in Westdeutschland, Ostdeutschland und der Schweiz.
    - **dataset:** SHP (1999 and 2004)
    - **method:** Logit models
    - **focus on:** education
    - **results:** slightly increasing mobility

- Joye, Bergman and Lambert (2003): Intergenerational Educational and Social Mobility in Switzerland.
    - **dataset:**
      - electoral investigation by the Universities of Geneva and Zurich (1971)
      - Department of Political Science at the University of Geneva conducted another electoral study (1975)
      - Les Suisses et leur société (1991)
      - SHP (1999)
    - **method:** Loglinear model
    - **focus on:** Education and class
    - **results:** - Education: first increasing mobility, then decreasing
      - Class: increasing mobility

Current State of Research concerning intergenerational mobility in Switzerland (selection)

- Bergman, Joye and Fux (2002): Social Change, Mobility, and Inequality in Switzerland in the 1990s.
    - **dataset:** Les Suisses et leur société (1991) and ISSP (1999)
    - **method:** Loglinear Models
    - **focus on:** Education
    - **results:** Slightly increasing mobility (probably non-significant)
- Levy, Joye and Kaufmann (1997): Changement structurel et mobilité sociale en Suisse.
    - **dataset:** Les Suisses et leur société (1991)
    - **method:** Loglinear models
    - **results:**
        - Education: after a minimum around 1950 increasing mobility
        - Class: decreasing after a maximum around 1980

Current State of Research concerning intergenerational mobility in Switzerland (selection)

- Buchmann, Charles and Sacchi (1993): The Lifelong Shadow. Social Origins and Educational Opportunity in Switzerland.
    - **dataset:** Occupational Careers and New Technology (1989)
    - **method:** OLS- and Logit model
    - **focus on:** Education
    - **results:** Increasing for men, decreasing for women

Conclusion:

Mixed results, probably due to the use of
- different datasets
- different timepoints

Research Objective

- Description of intergenerational mobility in Switzerland with focus on . . .

    1. change over the time

    2. multiple dimensions of social status: education, class, occupational prestige . . .

    3. validating findings by comparing results from as many different datasets as possible

Research Objective

- Problem: Information on parents, which is required for our analysis, is only available in few datasets.
- Possible datasets are:
  - Swiss Household Panel (1999/2004)
  - European Social Survey (2002, 2004, 2006, 2008)
  - European Values Survey (2008)
  - ISSP (1987, 1999)
  - Swiss Labor Market Survey (1998)
  - Les Suisses et leur société (1991)
  - Un jour en Suisse (1960)
- If you know more, please tell us!
- In this presentation we will focus on SHP and ESS.

Methodological Approach

- Research on intergenerational mobility often employs loglinear models.
- Loglinear models, however, are not so well suited for multivariate analysis (e.g. if we want to take into account several variables describing parent's status simultaneously).
- Hence, our analyses are based on techniques of the "fourth generation of stratification research" (Treiman and Ganzeboom 2000)
    - multinomial logistic regression for child's education and class
    - linear regression for child's Treiman prestige

Methodological Approach

- How do we know from such models whether intergenerational mobility increased or decreased?

- In general: The stronger the effects of parent's status on child's status, the less intergenerational mobility.

- "Strength of effect" may be a simple concept if applied to a single coefficient. However, things are more involved if we want to evaluate the overall strength of a relation, possibly including dozens of parameters.

- The approach we follow here is based on the PRE principle (Proportional Reduction of Error).

- That is, we ask to what degree the knowledge of the parent's status reduces the predictive uncertainty about the child's status.

Methodological Approach

- A PRE measure can be expressed as follows:

$$PRE = (E_0 - E_1)/E_0 = 1 - E_1/E_0$$

where E_0 are prediction errors we make under restricted information, and E_1 are the prediction errors under unrestricted information.

- Different error rules lead to different PRE measures. In the case of multinomial logit sensible (information theoretic) error rules are:

$$E_0 = -\sum_{i=1}^{N} \log_2\left(\widehat{P}_0(Y = y_i)\right) \quad \text{and} \quad E_1 = -\sum_{i=1}^{N} \log_2\left(\widehat{P}_1(Y = y_i)\right)$$
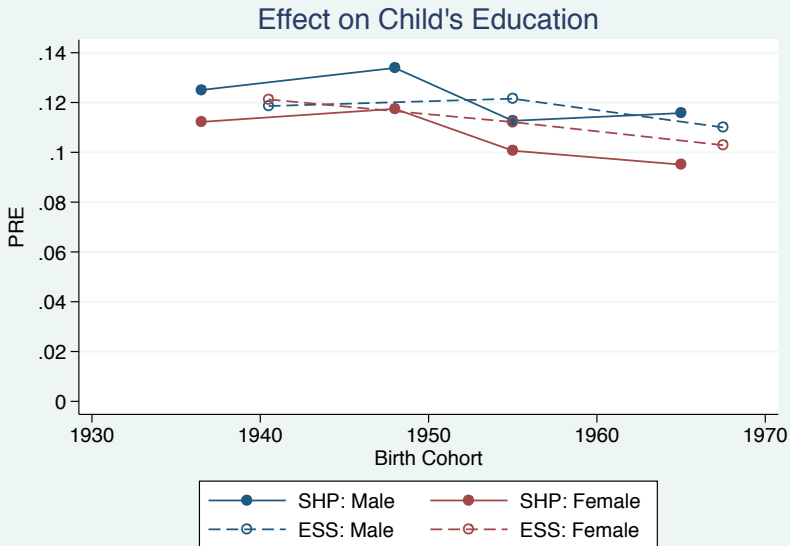
where y_i are the observed values and $\widehat{P}_0(Y = y_i)$ and $\widehat{P}_1(Y = y_i)$ are the prediction probabilities of y_i under restricted and unrestricted information, respectively.
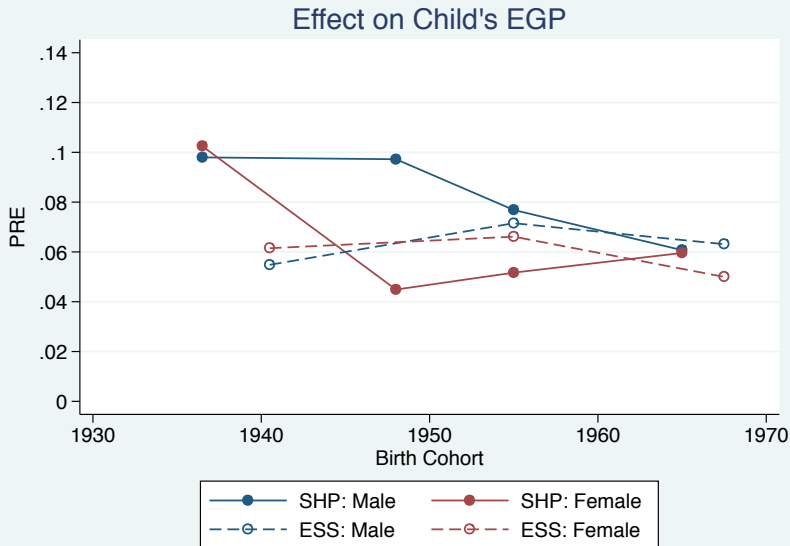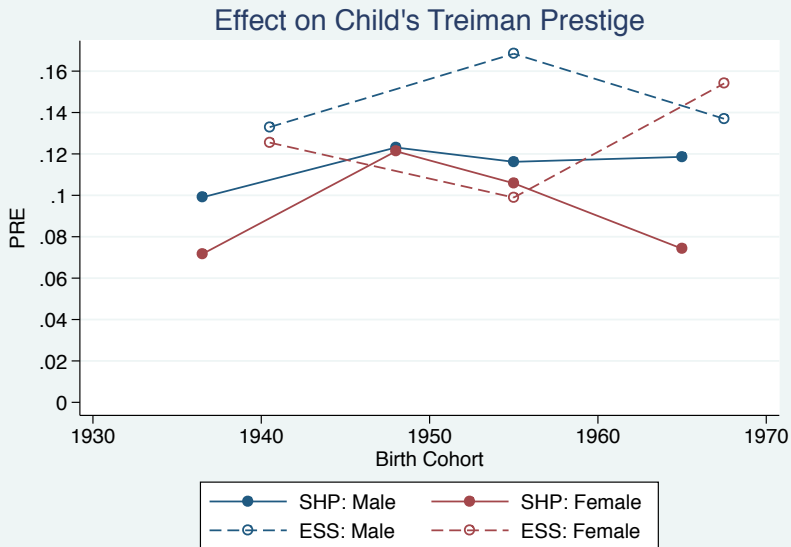
Methodological Approach

- Such PRE measures can be computed for different dependent variables (child's education, class, prestige) for different time points or cohorts.

- A decrease in PRE over time/cohorts would indicate an increase in intergenerational mobility (because information on the parent's status has less and less predictive power for the child's status).

- We will now apply this concept using the entropy formulas above for categorical dependent variables and squared errors for continuous variables.

- All analyses separately for men and women. Age range 35–70.

Data

- Swiss Household Panel
    - pooled sample: SHP I from and SHP II from 2004
    - dependent variables (child): education (5 categories), simplified EGP (5 categories), Treiman occupational prestige score
    - independent variables (parents): education (5 categories), EGP (8 categories), Treiman occupational prestige score
    - four cohorts: 1929-1943, 1944-1951, 1952-1959, 1960-1969
    - sample size per cohort and sex: around 700
- European Social Survey
    - pooled sample: 2002, 2004, 2006, 2008
    - dependent variables (child): education (5 categories), simplified EGP (5 categories), Treiman occupational prestige score
    - independent variables (parents): education (3 categories), EGP (7 categories)
    - three cohorts: 1932-1948, 1949-1960, 1961-1973
    - sample size per cohort and sex: around 700

Effect on Child's Education

Legend: SHP: Male, SHP: Female, ESS: Male, ESS: Female

Effect on Child's EGP

Effect on Child's Treiman Prestige

Conclusions

- The results seem to indicate that there is a slight increase in intergenerational mobility with respect to child's education.
- For child's EGP we find similar results for men, but results for women are inconclusive.
- No clear pattern emerges for occupational prestige.
- Some problems:
    - The changes might partially be driven by respondents' age. Analysis of additional datasets from different time points may shed light on this issue.
    - The PRE measures depend on data quality (in fact, any statistical measure for intergenerational mobility does). Different measurement quality in different datasets leads to different results.
    - Statistical inference for PRE measures.

Literature

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