The Reversal of Gender Inequality in Education in Europe: Implications for Reproductive Behaviour

The inequality in educational attainment has changed to the advantage of women

Until the 1970s, the vast majority of students in higher education were men. In recent years, more women than men successfully complete higher education. As a result, there are more highly educated women than men on the marriage market.

The new gender distribution in education is likely to affect reproductive behaviour

More highly educated women than men on the marriage market
Changing educational similarity in couples will affect household dynamics
Probability and stability of unions
Changing household dynamics will affect timing and frequency of childbearing
His and her relative education will change, with implications for his and her earning potential in the labour market

First evidence that the new mating squeeze affects educational assortative mating

Since many decades, educational homogamy has been dominant. If partners differed in their educational attainment, his education was typically higher than her education. The larger the number of highly educated women became, relatively to the number of highly educated men, the less feasible traditional mating patterns became. Today, partners still tend to be similarly educated. However, if there is a difference in their educational attainment, her education now tends to be higher than his education.

Hypotheses about future developments need to consider complex macro-micro interactions

We first build a theoretical model about mate choice on the micro-level.
We use computational simulations to see whether our theoretical model is able to replicate observed macro-level patterns.
After calibrating the model, we use it as a virtual laboratory to explore potential future scenarios.

An agent-based computational model of European marriage markets

With agent-based computational modeling, we can specify theoretically motivated rules for partner search and study their implications in large populations.

First results suggest that the model approximates actual partner search processes well

The calibrated model generates patterns of assortative mating that are similar to observed patterns.
The model can capture variation both across countries and across time.
The next step is to extend the simulation period and to explore the implications of potential future scenarios.

Data Sources

* European Social Survey Rounds 1 to 6 Data (2002, ed. 6.3; 2004, ed. 3.3; 2006, ed. 3.4; 2008, ed. 4.2; 2010, ed. 3.1; 2012, ed. 3.0)
* Reconstruction of populations by age, sex, and level of educational attainment for 120 countries for 1970-2000 by the International Institute for Applied Systems Analysis/Vienna Institute of Demography

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