















# Partners' Educational Pairings and Fertility across Europe

Natalie Nitsche, Anna Matysiak, Jan Van Bavel, Daniele Vignoli

INED, Paris, June 2018

Demography https://doi.org/10.1007/s13524-018-0681-8



#### Partners' Educational Pairings and Fertility Across Europe

Natalie Nitsche<sup>1</sup> · Anna Matysiak<sup>1</sup> · Jan Van Bavel<sup>2</sup> · Daniele Vignoli<sup>3</sup>

© Population Association of America 2018

Abstract We provide new evidence on the education-fertility relationship by using EU-SILC panel data on 24 European countries to investigate how couples' educational pairings predict their childbearing behavior. We focus on differences in first-, second-, and third-birth rates among couples with varying combinations of partners' education. Our results show important differences in how education relates to parity progressions depending on the education of the partner. First, highly educated homogamous couples show a distinct childbearing behavior in most country clusters. They tend to postpone the first birth most and display the highest second- and third-birth rates. Second, contrary to what may be expected based on the "new home economics" approach, hypergamous couples with a highly educated male and a lower-educated female partner display among the lowest second-birth transitions. Our findings underscore the relevance of interacting both partners' education for a better understanding of the education-fertility relationship.

Keywords Fertility · Education · Couples · Family · Europe

#### Introduction

Educational expansion and changes in childbearing behavior have been among the most striking features of the changing demographic landscape since the 1960s (Schofer and Meyer 2005). Women's participation in higher education has surpassed men's in

Natalie Nitsche natalie.nitsche@ oeaw.ac.at

- Wittgenstein Centre (IIASA, VID/ÖAW, WU), Vienna Institute of Demography/Austrian Academy of Sciences, Vienna, Austria
- <sup>2</sup> Centre for Sociological Research, University of Leuven (KU Leuven), Leuven, Belgium
- <sup>3</sup> Department of Statistics, Computer Science, Applications, University of Florence, Florence, Italy



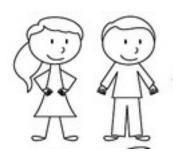
# Educational Pairings—What are They?



Homogamous highly educated



Hypogamous (she highly educated)

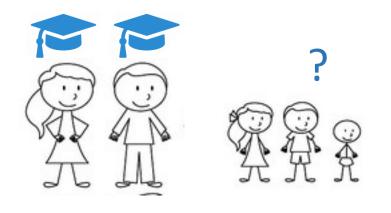


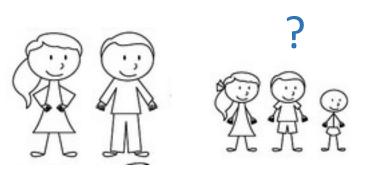
Homogamous medium educated

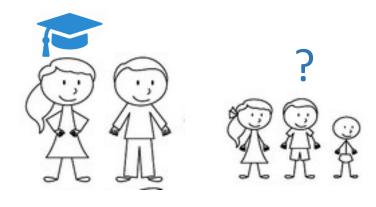


Hypergamous (he highly educated)

# Educational Pairings and Fertility?











# Theoretical Framing

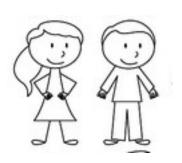


Oppenheimer/Resource
Pooling: Highly educated
homogamous couples have the
highest parity progression
rates



#### Bargaining Approach:

Hypogamous couples, along with homogamous highly educated couples, will display the highest rates of progression rates to all parities





#### Economic Theory of the

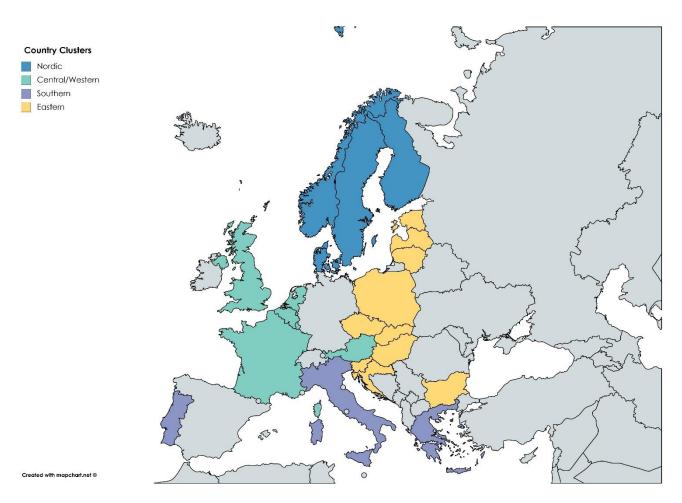
Family: Hypergamous couples will display the highest rates of entry into parenthood and parity progressions to second and third births

### Data

• EU-SILC longitudinal sample (Survey on Income & Living Conditions):

- Launched in 2003 throughout Europe, ongoing
- Usually 4-year household panel
- No full fertility, partnership, educational or employment histories
- 2016 release, covering 2014 as last year

## Sample & Method



Sample: Co-residential couples, women 18-40
Stratified by parity (0, 1, 2+)

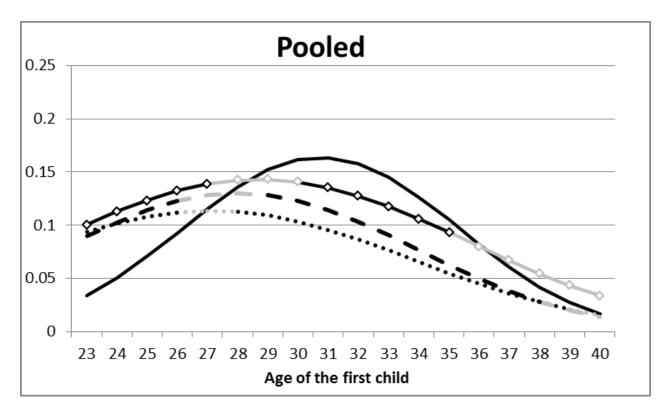
Stratified by parity (0, 1, 2+)
All pooled, and by country cluster

Models: Random effects discrete time event history

Covariate of interest: Categories of educational pairings (both high, both medium etc.)

Controls: enrolment, her age (squared), partners' age difference, marital status, calendar year, age at first birth, age of youngest child (age\*educ pairing for 1st birth models)

## Results— First Births Pooled Models

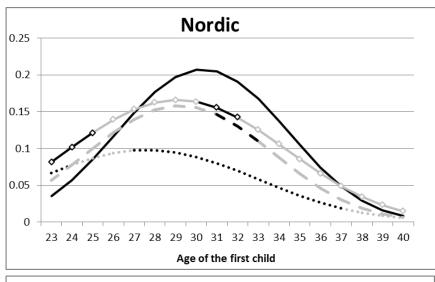


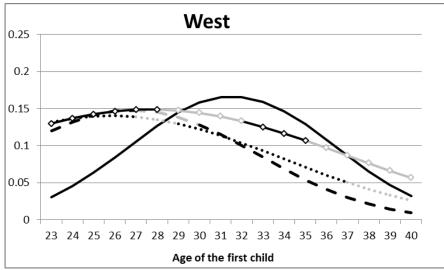
homogamous highly educated

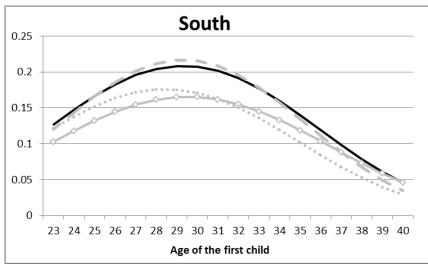
······ homogamous medium educated

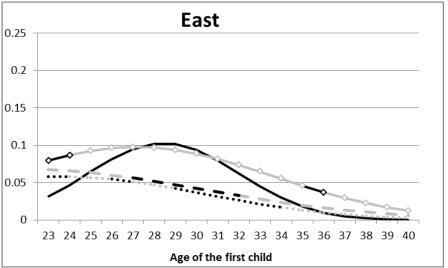
– hypergamous with highly educated man

## Results — First Births Country Groups

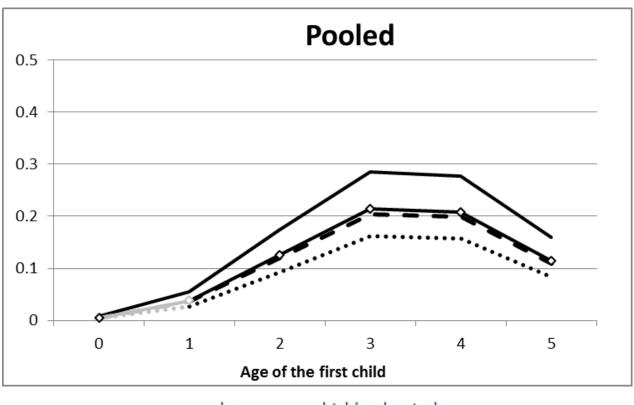








## Results— Second Births Pooled Models



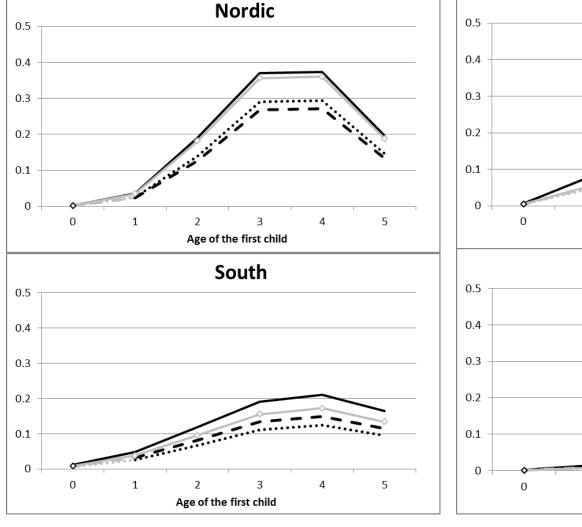
homogamous highly educated

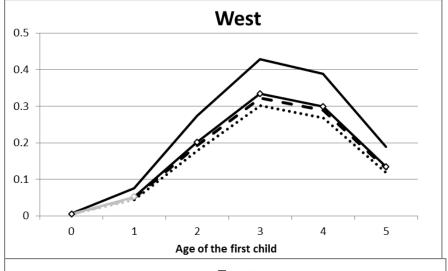
······ homogamous medium educated

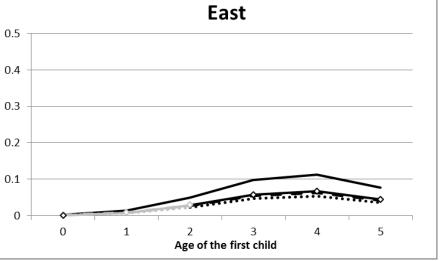
– hypergamous with highly educated man

— hypogamous with highly educated woman

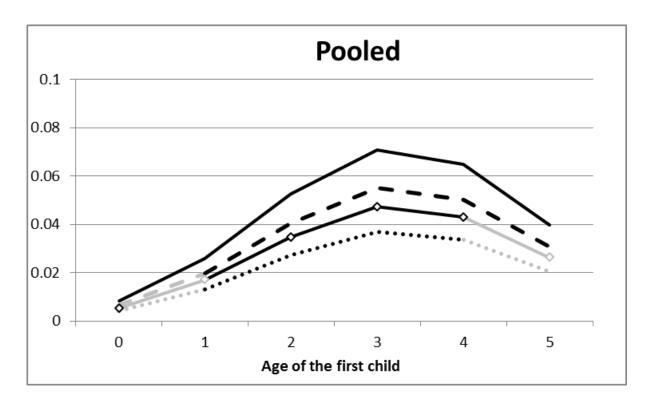
# Results — Second Births Country Groups







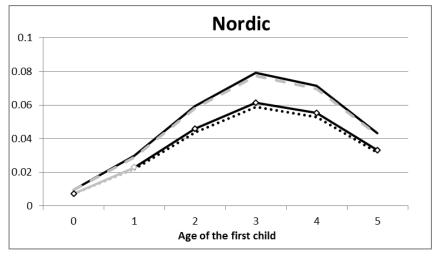
## Results— Third+ Births Pooled Models

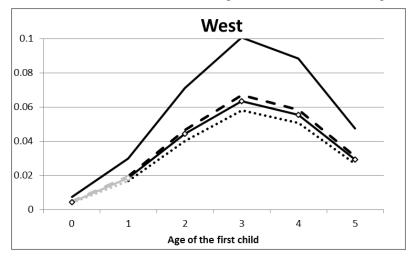


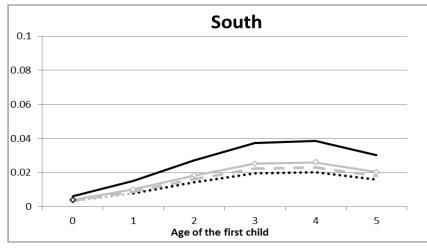
······ homogamous medium educated

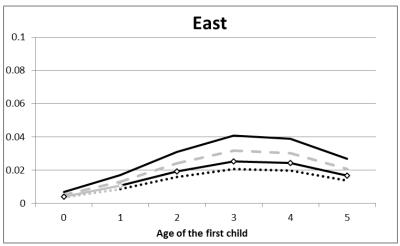
– hypergamous with highly educated man

# Results— Third Births Country Groups









## Summary & Discussion

- Looking at educational pairings extends knowledge on fertility-education relationship:
  - Both partners' education and their interactions improve model fit
  - Differences in childbearing behavior within her education by partner's education & vice versa
- Homogamous highly educated couples have highest second/third birth risks: resource pooling, egalitarian value consensus, expected future income & career stability? Other mechanisms?
- They postpone first births the most: later union formation, higher childlessness?
- Traditional "male breadwinner couples" do not show highest birth rates across countries
- Some differences by clusters—variation in meaning of pairings across regions?

## Limitations and Outlook

- What exactly is behind the findings?
  - Are those mainly timing effects? Or do they translate to quantum effects? Timing of union formations and timing of births
  - Couples perspective: Selection? Into stable partnerships?
  - Yet our results identify educational pairings as important and informative for childbearing behavior, beyond his or her education alone
- What is next?
  - More detailed data needed to differentiate between timing and quantum effects & to understand selection into unions, childbearing & union stability, or other mechanisms
  - Multi-level models can help identifying differences in pairing-fertility relationship across countries
  - Implications for macro level fertility rates?

















# Thank you for your attention

#### **Acknowledgements:**

The research leading to these results is based on a collaborative effort. The authors received funding from the European Union's Seventh Framework Programme (FP7/2007-2013) under grant agreements: 1) no. 627543 for *COUPFER/Marie Curie Action* (Natalie Nitsche), 2) no. 320116 for the research project *FamiliesAndSocieties* (Anna Matysiak and Daniele Vignoli), and 3) ERC Grant Agreement no. 312290 for the *GENDERBALL* project (Jan Van Bavel).

We are grateful to Tymon Słoczyński for his help at the early stages of this project.