

Assortative mating and union trajectories

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Love at First Swipe: Online Dating, Assortative Mating, and Marriage Outcomes in Europe Using Machine Learning-Based Causal Inference

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This study investigates the impact of online dating on marital and fertility outcomes and partnership heterogamy (education, age, and nativity), as well as the moderating role of heterogamy across nine European countries using the second round of the Generations and Gender Survey and novel doubly robust and machine-learning-based causal inference methods.

Using Augmented Inverse Probability Weighting (AIPW), results indicate that online dating leads to a 10-30% lower likelihood of marriage and having biological children across sampled countries. AIPW and multinomial models further reveal that meeting the partner through online dating increases both education hypergyny (women partnering with higher-status men) and hypogyny (women partnering with lower-status men), and that the effect on nativity heterogamy is mostly driven by hypergyny rather than hypogyny. Its effect on age heterogamy remains limited.

To explore treatment effect heterogeneity, Causal Forest, a machine-learning-based method, is applied, estimating individual treatment effects across different demographic pairings. Results provide evidence for all three gradients, namely education, nativity, cohort gradients. The varying characteristics of education and nativity gradients in online dating's effects likely reflect how strongly education and nativity structure social and romantic opportunities in different countries. The cohort gradient reveals that later-born cohorts experience weaker negative effects on marriage and fertility, reflecting shifting social norms and life course expectations.

These findings highlight how online dating reshapes relationship trajectories in stratified ways. Methodologically, this study advances causal inference in online dating research by leveraging AIPW and Causal Forests, offering a fine-grained, cross-national perspective on contemporary dating and family formation.

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Local partner markets, union formation and partner choice among women with a second generation migration background in Belgium

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The timing of union formation and partner choice among women with a migration background can be key points in the life course that shape social integration, gender dynamics, subsequent life events such as family formation, and socio-economic outcomes. However, we still have a limited understanding of the role of structural opportunities – shaped by local partner markets – regarding this key life event. Existing research on the spatial dimension of union formation and partner choice among individuals with a migration background has largely focused on the community size, degree of diversity, or sex ratio within a given area. This approach overlooks that potential partner markets are defined not only by the supply of potential partners, but also by competition (i.e., other women seeking a partner), availableness (e.g., suitable age range and relationship status of potential partners), and transparency (i.e., how easily relevant partners can be met). Using population-wide Belgian register data (2011–2023) and hazard models, this study examines the association between local partner markets and (i) the timing of first union formation (cohabitation or marriage), and (ii) the type of union formed (endogamous vs. exogamous) among women with a second generation migration background originating from Eastern Europe, Southern Europe, Northern and Western Europe, Maghrebi countries and Turkey. Building on a limited number of studies on majority populations we apply refined spatial indicators, including the 'availability ratio' and 'partner market density' to more accurately capture the structure of local partner markets.

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Family complexity trajectories and midlife health outcomes

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In contemporary societies, individuals increasingly experience non-standard trajectories on union formation and fertility patterns. To investigate the implications of such complex life course trajectories, we take advantage of three waves of the 1970 British Cohort Study (BCS70) to study the relationships between family complexity experienced by individuals during age 16 – 46 and their mental wellbeing and general health at age 51. Employing sequence-based methods, we construct individual trajectories consisting of partnership and fertility history, cluster individuals based on their dissimilarities and explore whether family complexity plays a role in their mid-life health outcomes. Our study takes into account potential selection effects using parental indicators measured at birth and health measurements during adolescence. The study highlights a unique perspective of defining child states in terms of multi-partner fertility (MPF), reflecting the diversity of fertility patterns along with non-standard union formation and dissolutions. In our sample, 11.4% of men and 13.2% of women experienced multi-partner fertility by the age of 46. The results show that compared with individuals who are grouped into clusters featuring married parents with no MPF, those who are members of clusters featuring re-partnering and having children with multiple partners score lower on general health. These effects cannot be fully explained by their selection into family complexity. Similar findings cannot be said for mental wellbeing indicators. Mental health at age 51 is most strongly predicted by mental health at age 16, regardless of family complexity experienced during adulthood.

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