Mating market and educational assortative mating in a life course perspective

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Social scientists have long asked to what extent the structural composition of the population shapes patterns of couple formation (Fraboni & Billari, 2001; Goldman, Westoff, & Hammerslough, 1984; Kalmijn, 1998; Schoen, 1983; see De Hauw, Piazza, & Van Bavel, 2014 for a review). Moreover, since couple formation is one of the mechanisms by which inequalities are reproduced both within and between generations (Schwartz, 2013), answering this question contributes to our understandings of mechanisms of the reproduction and maintenance of inequalities.

The mating market can be conceptualized as the supply and the competition for potential partners. It involves several dimensions of life (schools, neighborhood, family, friends, etc) and a pool of potential partners with mating-relevant features such as gender, age, education and ethnicity. Much research has focused on sex ratios as determinants of mating and couple sorting (Schoen, 1983), defined as the number of men divided by the number of women, according to factors such as age, race or educational attainment (Albrecht, Fossett, Cready, & Kiecolt, 1997; Fossett & Kiecolt, 1991; Goldman et al., 1984). Differently, the structuralist perspective highlights relative group size rather than the imbalance in the number of men and women, focusing on marriage market concentration (Blau, Blum, & Schwartz, 1982; Lewis & Oppenheimer, 2000). The key argument is that the fewer the potential mates in its own group, the more likely one is to marry outside, even in a situation of perfect balance among sexes. Finally, the search theory developed by Oppenheimer (1988) links sorting and market composition starting from the consideration that partner search has costs and benefits, that change across the life course. Depending on how unfavorable the market is, individuals may postpone their mating to find an appropriate partner, adapting more or less their preferences; this could lead to potential opposites couple outcomes such as singlehood or a better match on a given characteristic.

Several elements from these approaches could provide useful tools for studying the effects on union formation of the recent changes in the educational composition of the population, as the result of the so-known reversed gender gap in education (RGGE) (De Hauw, Grow, & Van Bavel, 2017; Esteve, García-Román, & Permanyer, 2012; Esteve, Schwartz, Van Bavel, & Garcia, 2016). With this term scholars refer to the fact that women are nowadays outnumbering men in their participation and success in higher education (Grow & Van Bavel, 2015). Since this implies a change in the relative sizes of educational groups, patterns of educational assortative mating are already shifting just for structural reasons. Research has shown that the new mating squeeze has implications for both observed macro (Esteve et al., 2016) and micro (De Hauw et al., 2017) dynamics patterns of educational assortative mating, highlighting a positive association between women's education and the rise of hypogamous couples (where women are more educated than men). Moreover, agent-based models show that the shift towards female hypogamy could occur without any change in preferences (Grow & Van Bavel, 2015).

Thus, it may be expected that especially highly educated women as well as less educated men are suffering an education-specific mating squeeze as a result of the RGGE (De Hauw et al., 2017). For highly educated women, the supply of equally-educated men will be too narrow, whereas for less educated men the expansion of education among women made their relative position in the population's education distribution even more unfavorable, given that women tend to partner with at least the same educational attainment (Blossfeld, 2009).

The aim of this paper is to investigate if and to what extent an education-specific mating squeeze has an impact on patterns of educational assortative mating. Two main outcomes related to couple formation will be analyzed (1) selection into couple, that is, entering in a stable relationship and (2) the type of educational sorting. Adopting a longitudinal approach following individuals' through their life course, the analyses will be stratified across educational groups. Shifts in the relative distribution of educational attainment will be considered as a source of mating squeeze. The German context is analyzed; this country-focus is especially interesting, since imbalances in sex ratios across educational groups are arising in German regions (Kröhnert & Klingholz, 2007).

Individual trajectories of couple formation are reconstructed using G-SOEP data, that provide complete biographic information on the respondent's current and former couple relationship. The first outcome of interest is selection into couple. Given the rise of non-marital cohabitation and the decline of marriage as the only form of couple commitment (Perelli-Harris & Lyons-Amos, 2015), a cohabitation of at least two years will be considered together with marriage as an indicator of a stable union. As a second outcome, partners' educational pairings will be analyzed in terms of homogamy, hypogamy (woman more educated than men) and hypergamy (man more educated than the woman).

The main explanatory variable will be the mating market composition, that will be constructed with German Microcensus data. For each individual the ratio between men and women with tertiary education will be calculated for every year. This will allow seeing how the availability of equally educated potential mates affects union formation (Lewis & Oppenheimer, 2000). Given the observed difference in age between men and women, the measure will be staggered in a range of two/three years between men and women (De Hauw et al., 2014). All individuals in the population – rather than just singles – will be included. Finally, analyses will be implemented at the regional-level (NUTS-1), that correspond to German Länder.

The period of observation is from 1985 to 2017. Partnership trajectories of respondents that experienced an episode of being single between the ages of 18 and 50 in the period of observation – provided that the respondent had previously participated in the G-SOEP when the period began – are analyzed in relation to mating market constraints. Controls about previous partnership history and birth cohort will be included. Therefore, the analytical sample is composed of 5,044 individuals.

In the first place, a detailed description of trends of union formation stratified by sex, educational attainment and birth cohort. Secondly, to test the extent to which mating market constraints affect sorting, discrete-time hazard models will be performed on a yearly basis (Eckhard & Stauder, 2018b; Lewis & Oppenheimer, 2000;

Lloyd & South, 1996; South & Lloyd, 1992). Logistic and multinomial regression models are implemented according to the outcome of interest.

Preliminary results on two groups – low educated men and high-educated women – show the existence of cohort differences in mating patterns, both in the probability and the type of partnership in terms of educational assortative mating. Younger cohorts (1975-1979 vs 1960-64) of low educated men and high educated women, indeed, display a lower likelihood of union formation and homogamy, even though the mating market does not fully explain these differences. Moreover, relevant dynamics over the life-course have been found, where partner market has important effects on mating patterns. The higher the advantage of women in higher education, the greater its positive association with singlehood across age, whereas it has been found a negative association with the likelihood of forming an homogamous union, that increases with age as well.

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