

# Educational Assortative Marriage in Comparative Perspective

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mate choice, homogamy, homophily, gender-specific partner preferences, social inequality, marriage markets

## Abstract

Most studies of assortative marriage still rely on cross-sectional data and apply log-linear modeling of the contingency table of wives' and husbands' educational levels. However, these macro studies have provided quite ambiguous findings and interpretations. In comparison, the life course approach analyzes single individuals over the life course and explicitly recognizes the dynamic nature of partner decisions and the importance of educational roles and institutional circumstances. Based on life course studies, educational homogamy seems to be driven by three factors: (a) Individuals often prefer to associate with equally educated partners; (b) educational expansion increases contact opportunities for equally educated men and women at an age when young people start to look for partners and form couples; and (c) women's changing economic role in dual-earner societies increases the importance of women's education and labor force attachment.

## INTRODUCTION

Sociologists studying social stratification in modern societies have always been interested in the degree of openness of the system of social inequality (Erikson & Goldthorpe 1992). Most of this research concentrates on the mobility mechanisms that link individuals to jobs and thereby generate unequal control over valued resources (Grusky 2008). However, the study of class position and job mobility is only one way to gain insight into the openness of societies. Another important way is to evaluate the patterns of assortative marriage. Marriage creates intimate ties, not only between partners but also among families and social groups. The exchange between social groups may be open or closed. If the boundaries between social groups are weak, the social structure and the networks of that society are called open; if the boundaries are strong, the social structure is considered closed (Weber 1972, Smits et al. 1998). The answer to the question of who marries whom is therefore central for an understanding of the reproduction of social inequality in modern societies (Glass 1954, Berent 1954, Lipset & Bendix 1959, Blau & Duncan 1967, Murstein 1976, Sixma & Ultee 1984, Ultee & Luijkx 1990, Mare 1991, Smits et al. 1998, Blossfeld & Timm 2003). Rates of homogamy reflect the degree to which individuals of similar social origin and with the same characteristics, such as education, status, religion, race, ethnicity, or occupation, marry each other (Burgess & Wallin 1943; Centers 1949; Hollingshead 1950; Scott 1965; Ramsøy 1966; Bumpass 1970; Bayer 1972; Michielutte 1972; Fischer et al. 1977; Johnson 1980; Spanier & Glick 1980; Glenn 1982; Gurak & Fitzpatrick 1982; Hout 1982; South et al. 1982; McPherson 1983; Blau & Schwartz 1984; Feld 1984; Alba & Golden 1986; Buss & Barnes 1986; McPherson & Smith-Lovin 1986, 1987; Lieberman & Waters 1988; Bozon & Héran 1989; Marsden 1990; South 1991; Kalmijn 1991, 1993, 1998; Hendrickx et al. 1994; Laumann et al. 1994; Jones & Luijkx 1996; Smeenk 1998; Flap 1999; Kalmijn & Flap 2001). They indicate the degree of exclusion

through the social structure and the extent to which social networks are closed to outsiders (Simmel 1917/1970, von Wiese 1967, Laumann 1973, DiMaggio & Mohr 1985).

The growing number of publications on assortative marriage over the past three decades signals an increasing interest in these issues among sociologists (e.g., Jürgens 1973; Mayer 1977; Kerckhoff 1978; Haller 1983; DiMaggio & Mohr 1985; Ziegler 1985; Ultee & Luijkx 1990; Mare 1991, 2008; Jones 1991; Kalmijn 1991, 1993, 1994, 1998; Erikson & Goldthorpe 1992; Qian & Preston 1993; Uunk 1996; Wirth 1996, 2000; Smeenk 1998; Qian 1998, 1999; Smits et al. 1998, 2000; Raymo & Xie 2000; Teckenberg 2000; Kalmijn & Flap 2001; Qian & Lichter 2001, 2007; Blossfeld & Timm 2003; Smits 2003; Schwartz & Mare 2005; Lichter et al. 2007; Hou & Myles 2008; Rosenfeld 2008; Smits & Park 2009; see also W.J.G. Uunk, H. Ganzeboom, and P. Robert, unpublished manuscript). Most of this research is restricted to single countries (e.g., Mare 1991) or to comparisons among only two or three countries (e.g., Hou & Myles 2008). Large-scale comparative research on marriage patterns including more than ten countries is rare (e.g., Ultee & Luijkx 1990, Smits et al. 1998, Smits 2003, Blossfeld & Timm 2003, Smits & Park 2009). The overall result of this research is that there is a strong correlation between characteristics of spouses in terms of race, age, religion, education, occupation, father's occupation, and several other characteristics. This correlation suggests that important social mechanisms exist in modern societies that influence spouse selection.

In this review, I concentrate on educational assortative marriage as the indicator of social openness. There are substantive and methodological reasons for this decision. In substantive terms, education is a central variable for marriage because (a) education is the most important determinant of occupational success in industrialized societies (Treiman & Yip 1989; Shavit & Müller 1998, p. 1) and (b) it reflects cultural resources influencing individuals' preferences for specific partners. Thus,

educational homogamy implies that the degree of social inequality engendered in an individual's life course is further enhanced through marriage because advantageous (and disadvantageous) economic and sociocultural resources of two individuals are then pooled and cumulated (Mayer 1977, Oppenheimer 1988). In terms of data, education is the most used variable in empirical studies of assortative mating because this indicator is available for both spouses for many and various countries.

## MACROSOCIOLOGICAL RESEARCH ON EDUCATIONAL ASSORTATIVE MARRIAGE

From a comparative macrosociological perspective, researchers of educational assortative marriage are interested in three major questions (see Smits et al. 1998): (a) How strong is the association between the educational levels of spouses in different countries? (b) How does educational homogamy change over time? (c) Can variations among countries in the strength of homogamy be explained by differences in their levels of economic development?

### The Three Main Hypotheses

In recent public and sociological discussions, it is often claimed that modern societies are becoming individualized and open. In other words, social structures and social boundaries are fading away (Beck 1986, Giddens 1991). The pluralization of life worlds, the differentiation of life paths, the evacuation of tradition from our everyday decision-making processes, and the weakening of communal or social control suggest that rates of educational homogamy should have decreased in the course of modern history. The theoretical foundation of such a claim is generally modernization theory (cf. Treiman 1970, Blau & Duncan 1967, Bell 1975, Parsons 1971), industrialization theory (Kerr 1983), or individualization theory (Beck 1986, Hradil 1987, Giddens 1991). These analytical approaches jointly assume an inherent logic of

development in the processes of industrialization and social modernization and infer a trend toward social openness and meritocratization in modern societies.

In particular, industrialization should lead to less educational homogamy because of (a) the decrease in parents' control of the marriage process and (b) the increase in the number of contacts between persons from different classes and status groups in the course of more extensive education, greater urbanization, and increased geographical mobility. Smits et al. (1998) therefore formulate a "romantic-love hypothesis" (which is sometimes also called the "general openness hypothesis"): If "love is blind," then an increase in contact opportunities among various groups and love marriages weaken the correlation between educational levels of spouses and increase intermarriage.

Referring to modernization theory, however, one could also predict the opposite effect (see Smits et al. 1998). For example, modernization theorists point out that the demand in highly industrialized societies for a mobile labor force produces a shift from ascriptive to universalistic achievement criteria in all dimensions of social life (Treiman 1970). Thus, individuals will not only try to achieve their highest possible educational attainment level and socioeconomic status, but also select a spouse who offers them the best prospects in these dimensions. If education becomes an increasingly important predictor of future socioeconomic status in modern societies, marriage decisions will be guided more by educational level and less by social origin. Thus, all other things being equal, the more both prospective spouses prefer a partner with a high educational attainment level, the higher the educational homogamy in that country. This is because only few people will accept a partner with less education, and the competitive forces on the marriage market will limit the opportunity to get a partner with a better educational level. Smits et al. (1998) call this the "status attainment hypothesis."

Finally, Smits et al. (1998) put forward a third hypothesis that assumes that both of the above consequences of the modernization

process have to be combined over time: With increasing industrialization, the modernization process will—in a first phase—replace family background with education as the central mechanism and therefore increase educational homogamy. But then, at a later phase of the modernization process, the importance of status considerations in marriage choice will fade away with the increasing importance of the mechanism of romantic love, so that educational homogamy will decline. The result is an inverted U-curve relationship between educational homogamy and historical time.

### **Mixed Empirical Evidences for Changes in Educational Assortative Marriage**

Reviewing existing research on long-term trends of assortative mating, one finds empirical evidence regarding these three hypotheses is quite ambiguous. When countries develop from agricultural to postindustrial societies, the available literature documents everything: increases, decreases, U-shaped patterns, inversed U-shaped patterns, and trendless fluctuations of educational homogamy. For example, Kalmijn (1991), Mare (1991), Qian & Preston (1993), Teckenberg (2000), Blossfeld & Timm (2003), Schwartz & Mare (2005), and Mare (2008) document strong evidence of increases in the educational resemblance of spouses during recent decades, leading to a concern that assortative marriage may contribute to growing economic and educational inequality. Smits et al. (1998) find in their cross-sectional analyses an inverted U-curve relationship between level of economic development and educational homogamy. In a follow-up study of educational homogamy in 55 countries, Smits (2003) then finds, with the same database, declining educational homogamy and more openness in more rapidly developing countries and in countries where the group of higher educated is smaller. Ziegler (1985) and Ultee & Luijkx (1990) also report declining homogamy rates in modern societies over time. In a study of educational assortative mating in ten East Asian societies,

Smits & Park (2009) find that the trend toward less educational homogamy is related to educational expansion. Finally, Wirth (1996) shows for Germany that educational homogamy rates do not really change over time; they only fluctuate without any trend.

### **Analytical and Methodological Reasons for Inconsistent Findings**

The inconsistent findings among existing studies largely reflect differences in analytical focus. Some studies examine only an overall trend without attending to trends among men and women at different educational levels (Kalmijn 1991, Raymo & Xie 2000, Smits 2003). The problem with these studies is that the overall development may obscure large differences among the underlying educational attainment levels (see Schwartz & Mare 2005, Hou & Myles 2008, Smits & Park 2009). Mare (1991) and Hou & Myles (2008), for example, concentrate on changes in the difficulty of intermarriage between adjacent educational levels. Hou & Myles (2008) show that the total homogamy rate rises among women in Canada and the United States, but the trend was driven mainly by the sharp increase among women with some postsecondary education. Conversely, a rise in homogamy between highly educated spouses could support the status attainment hypothesis over the general openness hypothesis, but the proportion of highly educated might not necessarily dominate the overall trend (Smits 2003). In this respect, Schwartz & Mare's (2005) consideration of both the overall change and trends by educational level establish an important step forward in this kind of research (see also Hou & Myles 2008).

The puzzling findings of assortative marriage studies are also largely attributable to differences in the study of populations and applied methodologies. Blossfeld & Timm (1997) and Wong (2003) show that arbitrary classifications of educational levels are a critical weakness in studies on trends over time and on cross-country differences in educational homogamy. First, aggregation of educational

levels might exaggerate the degree of educational homogamy, in particular at earlier periods, and then deflate the upward trend of homogamy. Second, a very detailed classification of educational levels might unduly magnify intermarriage rates and not only overemphasize the degree of openness of the marriage patterns but also distort the changes across time through additional noise. Third, aggregation across educational levels at the lower end of the distribution reduces intermarriage at the end of an observation window. Finally, aggregation at the top of the educational categories inflates the rate of homogamy at the end of an observation window (Hou & Myles 2008). Thus, it is important to carefully define for each educational system appropriate educational attainment levels. The classification should be neither too crude nor too detailed. Rather, the differences between educational levels should reflect well-chosen attainment levels with social significance so that increases in homogamy rates can be interpreted as indicators of social closure and increases in intermarriage rates can be considered as gains in social openness.

Another important methodological issue in the study of assortative marriage is the question of first marriage versus marriage stock. Most of the available homogamy studies are based on cross-sectional data. They analyze prevailing marriages that reflect the combined effects of assortative marriage, assortative union dissolution (see Blossfeld & Müller 2002–2003), and assortative remarriage. Kalmijn (1991) shows that the percentage of homogamous marriages increases as marriage cohorts age. This means that in cross-sectional analyses of assortative marriage there is a tendency to overemphasize a declining homogamy rate over time. Thus, newly formed marriages in which spouses' educational attainment can be measured at a time close to marriage formation have a great advantage. However, they then do not reflect the additional impact of union dissolution and remarriage influencing the overall trend in educational homogamy (Hou & Myles 2008).

Existing cross-sectional studies of assortative marriage also start from marital matches

and then try to explain patterns of assortative mating through the spouses' individual characteristics and other structural variables (Blossfeld & Timm 2003). The methodological problem of such an approach is obvious: This type of analysis not only starts from the outcomes (the marital matches) and then goes back in time to their causal conditions (the individual characteristics related to earlier life course phases), but it also excludes all those individuals from the study who are still single at the time of the interview. With increasing single rates at the beginning of the life course in modern societies, this is an important methodological problem.

An appropriate analysis should therefore proceed the other way around. It should study the mechanisms of how change in some property earlier in the individual life course induces change in marital choice later in time. In other words, research on assortative marriage needs to use longitudinal data of individuals and should adopt a life course approach. It should start with young single men and women who move along the life course to reconstruct the effects of changes in earlier social circumstances in the life course on people's later marriage decisions (Lichter 1990, Lichter et al. 1995, Blossfeld 1996, Blossfeld & Prein 1998).

## A LIFE COURSE APPROACH TOWARD EDUCATIONAL ASSORTATIVE MARRIAGE

From a life course perspective, empirical analysis of assortative marriage has to take into account the dynamic interplay of opportunity structures to meet potential partners in specific contexts in the life course—i.e., the chance to meet someone of the opposite sex within the social networks structured through the educational system for example—as well as individual's preferences determining the choice of partners within these social circles (Blossfeld 1996, Blossfeld & Prein 1998, Kalmijn & Flap 2001). In particular, one has to investigate how independently taken individual marriage decisions at the micro level lead to a reproduction of social patterns at the macro

level and, conversely, why a significant number of men and women succeed in escaping these forces of social reproduction by marrying a partner who does not have the same social origin or educational background.

The aim of this section is therefore to describe the theoretical approaches of a life course-oriented analysis of educational assortative marriage and to summarize the main results of a cross-national comparative life study conducted by a group of international researchers (see Blossfeld & Timm 2003). The countries included in this cross-national research are West Germany (Blossfeld & Timm 2003), Flanders (Corijn 2003), France (Goux & Maurin 2003), the Netherlands (DeGraaf et al. 2003), Italy (Bernardi 2003), Spain (González López 2003), Great Britain (Chan & Halpin 2003), Denmark (Leth-Sørensen 2003), Sweden (Henz & Jonsson 2003), Hungary (Bukodi & Robert 2003), Slovenia (Drobnič & Černigoj Sadar 2003), and the United States (Timm et al. 2003). Using life-history data from a broad range of industrialized countries and longitudinal statistical models, the process of spouse selection in the life course of single men and women was reconstructed step by step in each country. The analyses mostly cover the historical period since World War II.

### Micro-Level Explanations of Educational Assortative Marriage

Micro-level theories of assortative mating describe spouse selection as the result of a long-term, cumulative, and continuously changing life course process (see e.g., Haller 1983, Buss & Barnes 1986, Lichter 1990, South 1991, Lichter et al. 1995). In the following, we first describe the role of the educational system as a marriage market; we then develop a general partner search model and discuss the consequences of gender-specific preferences for marital choice.

**The educational system as a marriage market.** Partner decisions and spouse selection are most often made in the phase of transition from youth to adulthood. This phase of the life

course cannot be specified by rigid age categories but rather has to be conceptualized and modeled as the gradual adoption of adult roles and differential participation in certain adult activities (see Hogan 1978; Marini 1984, 1985; Blossfeld & Nuthmann 1989). Thus, the decisions themselves about partners and whether to marry become defining characteristics of the normative conception of the transition to adulthood (Featherman et al. 1984). The other significant transitions are the completion of education and entry into first stable jobs, which are determined by the country-specific institutional structures of the school and university systems and the organization of the employment and industrial relations systems (Hogan 1981). The following discussion therefore focuses on the role of the educational system as a marriage market.

First of all, in all modern societies the organization of the educational system imposes a relatively rigid age-graded logic on the life course of youth and young adults (Hogan 1981; Shavit & Blossfeld 1993, 1996). Although the degree of tracking in the educational system varies across modern countries, educational careers are structured in a sequence of selection barriers or hurdles that have to be mastered by each generation (Boudon 1974; Mare 1980, 1981; Shavit & Blossfeld 1993). In most societies, educational decisions are also concentrated on specific ages, and they are normally hard to postpone or to revise once they are made. At every educational hurdle, a certain proportion of young men and women fail to succeed in the process of acquiring higher qualifications. This stepwise selection process in the educational system has three important consequences for the role of the educational system as a marriage market.

First, in each generation the less able and educationally disadvantaged are leaving the educational system at earlier selection barriers (and at younger ages). With increasing age, the selection process in the educational system therefore creates increasingly homogeneous groups in terms of educational qualification within the educational system. According to Blau (1994),



this structural homogenization has important consequences for social networks because the probability that friendships develop is first of all dependent on contact opportunities (see also Blau & Schwartz 1984, Marsden 1990, Smeenk 1998). It is important to note that we mean here not only the contacts that one makes directly within the classroom or the educational institution itself, but also those within everyday life activities. This means friends, and friends of friends, have contact opportunities in free-time and sports activities and the like, which, of course, are also largely structured directly or indirectly by the fact that young people participate in the educational system (McPherson & Smith-Lovin 1986, 1987). In other words, the growing opportunity to meet people with the same level of qualification in the course of the educational career is a by-product of the selection process in the educational system and therefore should indirectly increase the likelihood of educational homogamy (Blau & Schwartz 1984, Smeenk 1998). The country-specific life course studies in Blossfeld & Timm (2003) provide empirical evidence that this is indeed the case. The rate of educational homogamy increases with the level of educational attainment.

Second, the process of selection in education means that the more highly qualified will leave the educational system at a later age (Marini 1984, 1985; Blossfeld & Huinink 1991). Because attaining an education makes it difficult to adopt family roles in most countries (Hogan 1981) and involves a high degree of economic dependency on parents or the state (see e.g., Blossfeld & Nuthmann 1989), most young men and women participating in the educational system are therefore normally not ready to marry (Marini 1984, 1985). The country-specific studies in Blossfeld & Timm (2003) demonstrate that completion of education is an important step for marriage in all countries and, in this way, becomes a socially significant precondition for entering into marriage. Because the more highly qualified individuals postpone the starting of a marriage longer than others, they tend to quickly catch up with their age

cohort after leaving school and eventually marry the partner who became a boyfriend or girlfriend during the period of education (Blossfeld & Huinink 1991, Gustafsson & Kalwij 2006, Esping-Andersen 2007). Thus, for the highly educated, the decision to marry a person of the same educational attainment level is highly age-graded directly after leaving the educational system (see Blossfeld & Timm 2003).

Third, in this process of educational selection the less qualified enter the labor market and employment system at an earlier age. This transition is often connected with a more heterogeneous social network at work and leisure and implies an increase in the frequency of contacts with people with different social characteristics such as age, occupation, or educational attainment level (Mare 1991, Blossfeld & Timm 2003). The opportunities to meet a spouse with a different level of education is thus structurally increased for these groups at younger ages (Blau et al. 1982, Blau & Schwartz 1984). Many of these contacts will occur by chance and be unimportant. But without the chance to meet, no new social relationships can develop (Verbrugge 1977). Sometimes lifelong friendships and marriages begin with such kinds of accidental encounters (Blau 1994). Thus, the country-specific studies in Blossfeld & Timm (2003) can demonstrate that less qualified people are not only prepared to marry at an earlier age (because they are leaving the educational system earlier, which involves greater economic independence from parents or the state), but their—conscious or latent—readiness takes place in a more heterogeneous marriage market at the workplace and leisure activities (see also Marsden 1990, Mare 1991, South et al. 1982). A lower level of educational attainment is therefore related to less age-graded marriage behavior and a higher likelihood of educational heterogamy at an earlier age (Blossfeld & Timm 2003).

In summary, the structural opportunities to meet a potential spouse with the same qualification level in the life course is strongly dependent on the respective educational attainment level (Blossfeld & Timm 2003). This opportunity is

highly time-dependent because it is based on the logic of a stepwise selection process leading to increasingly filtered educational groups with increasing age. The likelihood of educational homogamy therefore increases significantly with the level of educational attainment. A logical implication of this life course mechanism is that educational expansion will produce higher levels of educational homogamy across cohorts because both the level of educational attainment and the duration of educational participation increases for a growing number of young people within each cohort.

**A micro-level model of marital choice.** The opportunities to meet people with the same educational attainment level are only the necessary (structural) conditions for educational assortative marriage (Blau 1994). Young men and women still have to choose a particular partner from their selective social networks (see Blossfeld 1996). Partner search is, however, a rather difficult type of decision-making process under uncertainty (see Todd & Miller 1999). In this search process, (a) individuals encounter prospective partners in a temporal sequence, (b) who are appearing in random order and (c) are coming from a population with unknown parameters; (d) there are search costs and (e) time limits for partner decisions; (f) there is the difficulty of backtracking to previously rejected partners (because they might have found another partner in the meantime); and (g) there is temporal discounting.

Gigerenzer et al. (1999) suggests that individuals with limited time and knowledge normally use simple and frugal heuristics to make reasonable inferences in complex decision situations. The most important heuristic suggested in the current decision theory seems to be Simon's (1956) satisficing. Satisficing is a valuable method for making a partner choice from a set of alternatives encountered sequentially when one does not know much about possible partners ahead of time (Simon 1999). Typically, in such situations, there may be no optimal solution for when to stop looking for prospective marriage partners and settle down with a

particular one. Satisficing takes the shortcut of setting an adjustable aspiration level and ending the search for further alternatives as soon as one is encountered that exceeds the aspiration level (Simon 1956). Following Todd & Miller (1999), we assume that the adjustable aspiration level is based on individuals' past life course experiences and the mate values of those who do and do not show interest. In other words, we assume that people orientate their more or less vague and conscious idea of what they consider to be an acceptable (marriage) partner (Oppenheimer 1988) with reference to their respective educational attainment level reached at a specific point in the life course (Lichter et al. 1995). Individuals who are below this level are less attractive partners or might not be seriously considered, and those who are must not necessarily be the ideal partners. In other words, we do not have to assume that the search will be continued until a perfect partner has been found (see Oppenheimer 1988).

An important additional feature of mate selection is that at the same time that individuals are evaluating prospective mates, they are also being evaluated in return (Todd & Miller 1999). In other words, partner decisions are consensual choices. This means that if a person wants to let a first encounter or repeated rendezvous develop into a long-term intimate relationship or even marriage, then this can only happen if both partners agree (Blau 1994). Both partners must therefore have an interest in the continuation and stability of the intimate relationship and in turning it into a marital union at a certain point in time. Thus, preferences of both partners have to be taken into account in explaining marriage decisions. I therefore concentrate here on the impact of gender on partner decisions and its change over historical time.

**The role of gender-specific preferences and their changes.** If there was no gender-specific division of labor in the family and the labor market, then, according to Becker (1981, p. 73), men and women would benefit mostly from each other if they resemble themselves as much as possible in all their personal traits



(intelligence, health, education, religion, social origin, etc.). This view implies that the preference (and utility) structure of men and women tends to be inherently prone to (educational) homogamy, i.e., that “the like likes the like” (Kerckhoff & Davis 1962). This general claim is consistent with empirical evidence of most studies of assortative marriage.

However, research also shows that modern societies are still characterized by high levels of gender segregation in the workplace (Bielby & Bielby 1988), gender-specific income and occupational structures (Hakim 1998), and a gendered division of work within the family (Brines 1994, Blossfeld & Drobnič 2001). Although the gender structure has changed significantly in modern societies across cohorts, these changes have been mostly quite asymmetric for women and men. In most countries, female labor market participation has multiplied, and young women are today forced to juggle household and family demands with involvement in paid work, whereas young men still seem to be constrained to their role as provider by the traditional gender-based division of household and employment responsibilities (see Brines 1994, Blossfeld & Drobnič 2001, Schulz & Blossfeld 2006, Grunow et al. 2007).

Becker (1981) asserts that in the search of partners, the fundamental reason for the difference in the utility functions of men and women is the gender-specific division of work in society. In this view, women and men do not only marry to fulfill their intimacy needs or because they want to have children together. Rather, they marry because the gender roles are inherently complementary (Becker 1981). In particular, in gender-traditional societies, men expect to benefit from their wives given that women have been socialized to be more oriented toward taking charge of the household and raising children. Complementarily, women count on benefiting from their husbands because men have specialized in lifelong gainful employment. In a gender-traditional marriage market, a good education is therefore particularly important for men because husband’s income position determines the economic and social status of

the family. In such societies, as shown in the country-specific analyses in Blossfeld & Timm (2003), women tend to prefer men with high levels of education and good labor market opportunities and compete for them in the marriage market.

On the other hand, traditional men have ambiguous preferences with regard to women’s education (Becker 1981). As discussed above, husbands have the greatest advantage if their wives are as similar as possible in their traits, including education. However, traditional men are also providers and need wives who assume the bulk of family care and domestic functions and therefore should not have invested too much into their own career resources (or income potential). Thus, in the Becker model they prefer women with similar qualifications but low labor market orientation. This explains the strong empirical hypogamy of men and the continuing hypergamy of women in many countries (see Bernard 1982; Kalmijn 1991, 1998; Blossfeld & Timm 2003). In other words, intermarriage rates have not been symmetric for men and women. In particular, in earlier gender-traditional periods and more gender-traditional societal regimes, men still marry downwardly and women still marry upwardly (see Kalmijn 1991, 1998; Blossfeld & Timm 2003).

Because women in gender-traditional societies attach less value to their own formal education, the average level of education of these women remains far below that of the men. In other words, in these contexts only some men can structurally succeed in finding women with the same level of education, while many of them are forced to marry downwardly in terms of educational level. Yet this downward marriage is no problem for traditional men and women because traditional women are supposed to stay at home; their lower educational attainment level is therefore not as consequential. In summary, Becker’s (1981) gender-traditional model suggests a tendency toward educational hypogamy for men and a tendency toward educational hypergamy for women, in particular for the older birth cohorts in modern societies and for less developed societies. Blossfeld & Timm (2003)

demonstrate that this has been indeed the case in a great number of industrialized countries.

Becker's model also implies that women who are marrying downwardly (or men who are marrying upwardly) should be an exception in gender-traditional societies because these couples diverge with regard to the distributive realities regarding the gender of providers and dependents—and indeed, country-specific analyses in Blossfeld & Timm (2003) provide empirical support for this hypothesis. But this might not be the only explanation. According to the “doing gender” approach, these individuals also violate socially sanctioned arrangements offering recurrent opportunities to advance claims about the self as naturally male and female (Berk 1985). Thus, breadwinning wives and dependent husbands in more gender-traditional societies risk (a) social accountability; (b) negative judgments from relatives, friends, colleagues; and (c) even a threat to their gender identities (Brines 1994).

Yet these social and interactional pressures are important not only in gender-traditional societies. In modern societies, one can expect that these pressures conspire to slow down the diffusion of equal gender roles across cohorts. In particular, they should limit the speed of a symmetric change in gender roles (Brines 1994) and therefore constrain the choice of women to marry downwardly even among later-born cohorts. By asymmetric role change, we mean the empirically well-documented failure of husbands to increase their housework and child care participation more substantially when their wives work (Brines 1994, Schulz & Blossfeld 2006) or their insistence on the provider role, for example, in conservative and southern European welfare states such as West Germany, Italy, or Spain (Blossfeld & Drobníč 2001).

In general, the probability that young men and women change gender norms in successive birth cohorts should strongly depend on the degree of conformity with these norms in the preceding cohorts as well as their usefulness under new structural constraints (Berk 1985). Thus, one could assume that behavior is changed by

rational actors, if the actions of others objectively change costs and benefits of gender norms to an extent that these norms no longer facilitate the actor's means-ends relationships (Blossfeld & Prein 1998). The contributors in Blossfeld & Timm (2003) assumed, therefore, that men's preferences regarding women's educational attainment should dramatically change across cohorts. When the continuous gainful employment of wives becomes normal and the wife's income becomes a significant determinant of the living standard and lifestyle in dual-earner families (see Eggebeen & Hawkins 1990), men will increasingly prefer women with higher income potential (Hou & Myles 2008). Because the level of education is a major determinant of labor market, career, and income opportunities in modern societies (Shavit & Müller 1998), men in each later birth cohort should increasingly prefer more qualified women. This change in men's preferences, together with men's structurally increased chances of meeting women of equal qualification in the educational system, should therefore raise the level of educational homogamy across cohorts and reduce educational hypogamy of men across cohorts. Indeed, there is empirical evidence in the life course studies that educational homogamy has increased dramatically across cohorts and that hypogamy is mainly driven by the structural availability of qualified women (Blossfeld & Timm 2003).

Of course, men with low qualifications in each successive cohort will also increasingly prefer women with higher qualifications and income potential, but these qualified women might still be socially accountable if they marry downwardly, at least as long as the male breadwinner ideology plays an important role in a specific society. The country studies in Blossfeld & Timm (2003) provide evidence that there is a continuation of the male breadwinner norm in most (emerging) dual-earner societies. This inertia keeps the proportion of women who marry less qualified men surprisingly low across cohorts. The findings in Blossfeld & Timm (2003) suggest that the best educated women and the worst educated men also have

the highest likelihood of remaining single (see also Lichter et al. 1995). For the best educated women, this is so because, if they are not successful in finding an equally qualified partner, it is still socially and psychologically costly for them to marry downwardly; for the worst educated men, this is so because they are not very attractive marital partners in the face of the male breadwinner and dual-earner norm.

Because gender roles are deeply entrenched in most modern societies, the male breadwinner role continues to be important even in many dual-earner societies (Blossfeld & Drobníč 2001). Blossfeld & Timm show that the increase in women's downward marriage across cohorts is much lower than it could have been based on the increasingly balanced educational attainment levels of men and women across cohorts. There clearly is an increasing divergence between observed and estimated downward marriage rates for women in most countries. The estimated rates represent marriage probabilities under the assumption of a random marriage. The male breadwinner norm still is a significant mechanism in the choice of partners in most countries (see Blossfeld & Timm 2003).

## Summary of Main Results of Assortative Marriage in the Life Course

The country-specific patterns of homogamous, downward, and upward marriage rates in the Blossfeld & Timm (2003) volume support the hypothesis that peoples' preferences are inherently prone to (educational) homogamy (Becker 1981, Blau 1994): "The like likes the like." Whereas in more gender-traditional societies—characterized by a low degree of women's labor force participation—women's educational attainment levels were less important characteristics for the marriage market (Becker 1981), this situation changed when modern societies started to transform from male breadwinner to dual-earner societies (Eggebeen & Hawkins 1990). In dual-earner societies, wife's income becomes a significant determinant of the living standard of the family, so that young men

increasingly prefer women with a high income potential, too (Oppenheimer 1988). This change in men's preferences together with the structurally increased chance of men to meet women of equal qualification in the educational system seem to increase the observed homogamy rates above the rates estimated under the assumption of random marital matching. On the other hand, women's upward marriage (and men's downward marriage) always appears to have been the result of structural constraints: Many women had to marry upwardly simply because the average level of education of women was below that of men. However, this situation has changed dramatically across cohorts. The proportion of these upwardly marrying women clearly declined as the educational attainment structure of men and women became more balanced. Finally, women's downward marriage is still under strong social and interactional pressure (Brines 1994, Berk 1985). In many countries, downwardly marrying women still risk social accountability and negative judgments from relatives, friends, colleagues, etc. Thus, in many modern countries women's observed downward marriage rates stay far below the downward marriage rates that were possible under the assumption of a random marital matching.

## The Impact of Social Origin on Educational Assortative Marriage in the Life Course

Another aspect of assortative mating that intrigues sociologists is the role of the family of social origin. Social origin refers to a conglomerate of highly correlated economic and social characteristics of parents such as wealth, household income, prestige, jobs, education, culture, etc. (Grusky 2008). These correlates not only make status differences between educational groups of parents symbolically more important, but also function as barriers between social circles (Bourdieu 1984).

**Direct effects of social origin on assortative mating.** With increasing level of father's education, social networks are more exclusive

(Bourdieu 1984) so that the father's educational attainment level should have a positive direct effect on the rate of educational homogamy of the children in longitudinal analyses. However, expansion of education has also increased the number of children from disadvantaged backgrounds in institutions of higher education and thus makes contacts between children of different social origin easier (see also Boudon 1974, Shavit & Blossfeld 1993, Erikson & Jonsson 1996). This should diminish the social barriers between children from different social classes and increase the probability of coupling among these children.

Empirical evidence is still quite mixed across countries regarding the direct effect of social origin on educational homogamy (Blossfeld & Timm 2003). The direct effect of father's educational attainment level on the homogamy rate is clear in West Germany but certainly cannot be simply generalized across other countries (Blossfeld & Timm 2003). This relationship is obviously much more complex and dependent on country-specific idiosyncrasies that need to be analyzed in more detail in future research.

**Indirect effects of social origin on assortative mating.** With regard to the indirect effects of social origin on educational assortative mating, the following six hypotheses are possible (Blossfeld & Timm 2003): First, the opportunity of meeting an equally qualified partner in the educational system is the highest if the level of education of son/daughter corresponds to that of the father (Mare 2008). In this case, the social networks of the family of origin and the social networks mediated through the educational system will overlap the most and mutually reinforce each other (Marsden 1990). Second, those sons/daughters who have attained higher education levels than their fathers will get access to new social networks via school. One can therefore assume that these sons/daughters will not only prefer partners with the same education, but will also try to consolidate their new higher social status through a homogamous marriage (Blossfeld & Timm 2003). The

likelihood of educational homogamy should therefore increase in this case.

Third, these upwardly mobile sons and daughters also retain their networks with people from their social origin (friends, acquaintances, relatives, etc.) (see Verbrugge 1977, Blau 1994). Thus, one would expect that these social networks will also increase the likelihood of choosing a partner from their social origin and therefore of marrying downwardly (Blossfeld & Timm 2003). This effect of social origin on downward marriage must be particularly important for traditionally oriented men, as discussed above. Yet, it might also become increasingly important for women across cohorts.

Fourth, sons and daughters who are downwardly mobile in their educational career should, of course, be less inclined to educational homogamy at this new lower level. Thus, there should be a negative effect of social origin on homogamy for these individuals (Blossfeld & Timm 2003).

Fifth, because these downwardly mobile people can also utilize the social networks of their family of origin, they still have a chance to meet better educated partners and to marry upwardly (counter mobility) (Erikson & Goldthorpe 1992). This might especially be the case for traditionally oriented women, but it might also be an increasingly important mechanism for men.

Finally, in terms of social networks, the likelihood should be very small that sons and daughters who are upwardly (downwardly) mobile owing to their educational career marry up (down) even further (Marsden 1990). Such double upward (downward) mobility should be difficult to achieve in the life course because of the lack of social networks (Blau 1994).

Regarding these hypotheses, the empirical results of the cross-national estimates of the indirect effects of social origin on educational assortative mating are quite ambiguous (Blossfeld & Timm 2003). They only allow two generalizations: (a) In almost all industrialized countries analyzed, educationally downward mobile sons and daughters have used the opportunity to marry upwardly. Thus, there is a counter

mobility with regard to educational attainment level (Erikson & Goldthorpe 1992). They are able to meet better educated potential (marriage) partners through the networks of their family of origin (Marsden 1990). (b) A correspondence between father's and children's level of education clearly has a strong positive effect on the educational homogamy rate of children in all countries under study (Blossfeld & Timm 2003). In this case, the social networks of the family of origin and the school system overlap most and reinforce each other (Blau 1994).

## FUTURE RESEARCH ISSUES

Most studies of educational homogamy still rely on cross-sectional data and apply log-linear modeling of the contingency table of wives' and husbands' educational levels. These macro studies have provided quite ambiguous findings and interpretations. Unfortunately, they almost completely ignore the time-dependent nature of the educational attainment and marriage processes. Life course-oriented studies of educational assortative marriage analyze singles over the life course and are better able to trace the long-term, cumulative, and continuously changing life course process that might lead to marriage. From a social structural point of view, this process begins with the economic and cultural conditions of primary and secondary socialization in the family of origin during childhood and youth, branches off when young people are selected into the various tracks within the educational system, and further differentiates into the more heterogeneous occupational fields and job careers after entry into the employment system. Life course studies can analyze how men and women, who are involved in biographic-specific opportunity structures, are exposed to a selective network of possible partners. They can formulate and test a much richer set of theoretical mechanisms that advance our understanding of how single people meet potential partners, how couples are formed, and under which conditions people marry.

Nonetheless, there are several issues that are important for future research efforts: First, the rise of consensual unions and the increase in separation and divorce are important issues for interpreting results of assortative marriage, particularly when cross-country comparisons are made (Nazio & Blossfeld 2003, Nazio 2008). A recent international comparative study on the impact of assortative partnership selection, division of work in the household, and union separation suggests that educational heterogeneity of partners in cohabiting couples does increase the rate of separation (Blossfeld & Müller 2002–2003). Thus, cohabitation seems to function as an additional social filter in the process of family formation. In addition, only women's downward marriage increases separation and divorce rates (Blossfeld & Müller 2002–2003). However, these issues clearly have to be analyzed in more detail in the future.

Second, we need much more qualitative and quantitative time-related information on how people search for partners, where people meet, and how they make partner decisions. There is literature on preferences and the cultural similarity of values and opinions (see Buss & Barnes 1986, or the discussion in Kalmijn 1998), as well as on the filter process of how people develop a network of friends and acquaintances in education, work, and leisure time (Fischer et al. 1977, Marsden 1990, Bozon & Héran 1989). However, it is important to do this research from a longitudinal perspective. This can be achieved by life course studies, which collect not only objective life course information but also data on individual preferences, partner choice, and social networks.

Using this kind of enriched life course data, investigators will never be sure whether positive assortative mating is the result of preferences rather than opportunities. Among promising steps to solve this problem are studies of dating behavior (Belot & Francesconi 2006). The speed dating design gives scientists a direct observation of individual preferences, and the random allocation of participants across events generates an exogenous source of variation in opportunities, allowing investigators to identify



the role of opportunities separately from that of preferences. Belot & Francesconi (2006) find in such a study that women and men equally value physical attributes, such as age and weight, and that there is a positive sorting along age, height, and education.

Another new approach to study such issues of opportunity structure and individual preferences is the analysis of processes of partner choice on digital marriage markets. Using unique interaction data of individuals participating in an online dating site, Skopek et al. (2009) are able to reconstruct early processes of partner choice of men and women. Their results show that in Germany there is a clear tendency toward educational homophily. Individuals have a strong preference for partners with the same educational degree. This is particularly true for women. The findings also support the exchange theoretical hypothesis that educational homophily is stronger the higher the level of education. If heterophile contact behavior is analyzed, it is clear that women are still reluctant to contact males with lower educational degrees. In Germany, they clearly still prefer men with higher educational levels or the same level. Men are still likely to contact women with lower educational

degrees. These findings therefore suggest that at least in Germany partner choice today is still dominated by quite traditional gender preferences. All in all, the results show that digital marriage markets do not reduce social distances between social groups. Rather, the high level of homophily seems to close relationships between social groups on the Internet. But more Internet research is necessary to understand this kind of new process of assortative marriage.

In terms of methodology, clearly panel and event history methods have to be utilized much more to estimate the impact of mechanisms influencing the time-dependent filter process of educational assortative mating. Finally, in situations in which voluntary pairings have arisen through some complex process whose details have not been recorded, a very promising methodological development is the estimation of models of matching in marriage markets (Logan 1998). In this approach, men's and women's preferences for marriage partners are estimated simultaneously using data on the characteristics of married couples and single individuals. Underlying this method is a parametric version of a two-sided matching model of marriage considered in game theory.

## DISCLOSURE STATEMENT

The author is not aware of any biases that might be perceived as affecting the objectivity of this review.

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