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Determinants and Consequences of Immigrant-Native Intermarriage in Contemporary Nordic Settings

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Will You Intermarry Me?

Determinants and Consequences of Immigrant-Native
Intermarriage in Contemporary Nordic Settings

ANNIKA ELWERT

LUND STUDIES IN ECONOMIC HISTORY 84 | LUND UNIVERSITY



Will You Intermarry Me?

Determinants and Consequences of Immigrant-Native Intermarriage in Contemporary Nordic Settings

Annika Elwert



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DOCTORAL DISSERTATION

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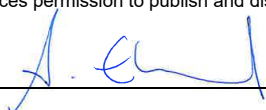
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Abstract <p>This dissertation examines the determinants and consequences of immigrant-native intermarriage in two Nordic countries, Sweden and Denmark, between 1980 and 2011. An increase in immigration during the second half of the twentieth and early twenty-first century in the countries under study was accompanied by an increase in intermarriage. However, the marriages of natives and some immigrant groups are more frequent than others, which may indicate that the strength of the immigrant-native boundary differs between immigrant groups. In contrast to previous research, this dissertation focuses on the perspectives of both the immigrants and the native majority and attempts to answer the following questions: who crosses the immigrant-native boundary through marriage, is immigrant-native intermarriage of a special nature, and does immigrant-native intermarriage contribute to successful integration.</p> <p>This dissertation is a compilation of four papers, each of which is a quantitative study of the determinants or consequences of intermarriage that relies on register data collected by the administrative authorities in the countries in question. The findings of this dissertation show that for natives both economic and non-economic status in the marriage market are associated with intermarriage. Moreover, patterns of age-assortative mating differ in intermarriages and in marriages of the native majority. For both Swedish men and women, unions in which the partner is considerably younger are relatively more frequent among immigrant-native intermarriages. The findings also suggest that the larger age gap between men and women in intermarriages is not only related to the differential treatment of certain immigrant groups in the Swedish marriage market but also partly the result of racial discrimination.</p> <p>Intermarriage nevertheless is related to immigrant integration. The findings from this dissertation show that intermarriage leads to positive income development for intermarried immigrants, particularly for immigrants whose country of origin means that they would otherwise experience difficulties in the labour market. With respect to demographic integration, intermarried immigrants deviate strongly from endogamous immigrants. While immigrants of certain origins display fertility patterns which confirm the existence of son preferences, immigrants from the same origins who are in unions with natives do not show such patterns by and large.</p> <p>This dissertation shows how immigrant-native intermarriage is connected with the broader social structure. An increase in immigrant-native intermarriage reflects the openness of a society to a certain degree. However, the findings of this dissertation also show that intermarriage is related to the social structure in a particular way. Intermarriage cannot only be regarded as a reflection of the successful structural assimilation of immigrants because intermarriage patterns also reflect social stratification. Intermarriages with some immigrant groups show systematically different patterns of assortative mating, which indicates the differential treatment of certain immigrant groups in the marriage market.</p>		
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Determinants and Consequences of Immigrant-Native
Intermarriage in Contemporary Nordic Settings

Annika Elwert



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*I think ... if there are as many minds as there are men, then there are
as many kinds of love as there are hearts*

Leo Tolstoy, Anna Karenina

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List of papers

- I Elwert, Annika. Opposites Attract – Assortative Mating and Immigrant-Native Intermarriage in Contemporary Sweden. *Unpublished manuscript*.
- II Elwert, Annika. Racial Discrimination in the Marriage Market? An Exploration of Swedish Adoption Data. *Unpublished manuscript*.
- III Elwert, Annika & Tegunimataka, Anna (2016). Cohabitation Premiums in Denmark: Income Effects in Immigrant–Native Partnerships. *European Sociological Review*, 32(3), 383-402.
- IV Elwert, Annika. Fertility Patterns and Sex Preferences for Children in Immigrant–Native Intermarriages in Sweden. *Unpublished manuscript*.

Introduction

Contribution, Motivation, and Aim

Marriage is one of the most intimate relationships in life and yet is an element of the broader social structure. Who we marry, who we fall in love with, who we find attractive does not happen at random but is embedded in a social structure which is characterized by an order of social groups and – depending on time and place – the more or less firm boundaries between these. The strength of these boundaries is decisive for marriage patterns, because strong boundaries are crossed less often than weak ones. Social boundaries for marriage have weakened over time, and the sentiment of romantic love has become more important as a basis for spouse selection (Shorter 1975). However, even in modern contemporary societies the social structure creates the framework in which romantic love operates (Goode 1964). Partners and spouses are typically chosen within *fields of eligibles* (Winch et al. 1954), which are more homogeneous than the society as a whole. That means that even though we presume the free choice of partners in contemporary society, most members of this society do not qualify as potential mates for others. The fields of eligibles are homogeneous with regard to many characteristics, examples being age, education, social background, and income.

This dissertation focuses on the relationship between the native majority population and immigrants in the marriage market, and on the particular case where the immigrant-native boundary is crossed by marriage; that is, where immigrants enter the native majority's fields of eligibles. Even though boundary-crossing marriage – intermarriage – can cross many of the aforementioned social boundaries, the boundary between immigrants and the native majority in contemporary society is often perceived as a stronger social boundary than others. The strength of this boundary makes boundary-crossing relationships such as immigrant-native intermarriages a particularly interesting case of study.

In previous research, immigrant-native intermarriage has been widely studied with a focus on the minority ethnic or immigrant group (e.g. Lucassen and Laarman 2009; Qian and Lichter 2001; Kulu and González-Ferrer 2014). In this literature, immigrant-native intermarriage is often studied in the context of immigrant integration and is regarded as the final step of the assimilation process (Gullickson 2016). Well-integrated immigrants who have learned the destination country's language and who are economically active and have entered the majority population's social circle are, in that

respect, most likely to intermarry. Successful integration then provides more opportunities to meet potential native partners, but (implicitly or explicitly) intermarriage has been interpreted as reflecting the willingness of different immigrant groups to intermarry. A rather neglected aspect is that this requires as much willingness to intermarry on the part of natives as of immigrants.

Marriage migration involving marriage to natives (see Kofman 2004 for an overview) has received much attention in the Swedish media under the label “wife import” (*fruimport*; see, for example, Svenska Dagbladet 2012). Phenomena such as marriage migration contest the idea that intermarriage is mainly an outcome of immigrant integration. More generally, marriage migration is an indication of a globalization of marriage markets due to factors such as more frequent travel and the Internet (Niedomysl et al. 2010). Thus, the majority population’s preferences for marrying out are as important as the openness of immigrants towards marrying majority natives. In this dissertation, I aim to broaden the view on intermarriage by addressing the question of the degree to which the occurrence of intermarriage in a society is related to the majority population’s openness towards minorities in the marriage market. Intermarriage is often thought to signal the fact that different social groups regard one another as equals (cf. Kalmijn 1991), but marriages can also reproduce social hierarchies by excluding certain groups from the pool of potential partners and reproducing social structures within them. Nonetheless, intermarriage can play an important role in immigrant integration (see Rodríguez-García 2015 for an overview).

In theoretical accounts, intermarriage is regarded as representing a society’s social structure (Blau 1977; Blau et al. 1984), as an expression of social stratification (Davis 1941; Merton 1941) or as a signal of successful immigrant integration (Gordon 1964). According to these theoretical views, intermarriage lies between the poles of social openness and social restraints. While intermarriage according to Blau’s theoretical account occurs naturally in modern, functionally differentiated societies, Davis and Merton regard intermarriage as an integral part of a hierarchical social structure which is formed by the majority population. Gordon acknowledges the social structure, but regards intermarriage not as a representation of the social hierarchy but as a sign that this hierarchy has been circumvented and that immigrants have “placed their own impress upon these social structures to some extent” (Gordon 1964, 125–26).

Research Questions

Aligned with these theoretical notions on intermarriage, the major questions that this dissertation attempts to answer are:

- (1) Who crosses the immigrant-native boundary through marriage?

Question one is concerned with the determinants of intermarriage. In line with Gordon’s concept of marital assimilation, several studies have addressed this question

regarding immigrants by comparing intermarried immigrants to immigrants who married within the same origin group (for example, Qian and Lichter 2001; Qian et al. 2017; Dribe and Lundh 2008 on Sweden), which often showed that it tends to be the more highly educated immigrants who intermarry. Answering the question of the determinants of intermarriage for majority natives has, however, been given less attention in the literature. The first study in this dissertation contributes to this literature by analysing patterns among native men and women who marry immigrants. As well as providing a general account of the characteristics of natives who intermarry (with respect to characteristics such as education, income and age), the study also looks at whether differences in determinants can be found according to the origin of the foreign spouse and between marriage migrants and immigrants residing in Sweden prior to marriage. Differences in the characteristics between natives who marry within their group and those who marry out could, for example, indicate whether a highly educated and mobile elite tends to be more likely to intermarry or whether individuals who intermarry are rather unattractive to native partners, meaning that they have difficulties finding a spouse in the native marriage market and therefore marry out.

(2) Are these boundary-crossing relationships of a special nature?

The question on the determinants for natives to intermarry is closely related to the question of the nature of intermarriage and how it compares to endogamous native marriage. If intermarriages differ systematically from native majority marriages in terms of assortative mating patterns (i.e., for example, patterns of educational and age homogamy), it is possible that the particular nature of intermarriage was taken into consideration by those natives seeking to intermarry. Such is the case, for example, where natives can make a more attractive match with a more educated, younger or physically more attractive partner when marrying an immigrant rather than a native. This question is concerned with the conflicting ideas of intermarriage being a signal of societal openness and a reflection of a stratified society. By focusing on the characteristics of an intermarried couple and the way in which the characteristics of both partners relate to one other, one can identify whether intermarriages are systematically different from the native majority's endogamous marriages. Systematic differences can indicate that intermarriage is a reflection of a hierarchical social structure and that immigrants are treated differently in the native majority's marriage market. In this case, structures of social hierarchies and social inequality can be utilized by natives to find an attractive spouse. One important question is whether such hierarchies apply to all immigrants and whether they are related either to the immigrants' origins, to the particular migration context (i.e., whether the migration is directly related to the native partner or is independent of him/her), or to racial differences in the marriage market. In Paper I, I focus in particular on immigrant origin and the migration context, while in Paper II I address the different roles of immigrant status and race in the natives' marriage market.

(3) Does immigrant-native intermarriage contribute to immigrant integration?

This question addresses in particular the consequences of intermarriage. The aspect studied most closely is whether intermarriage is related to the immigrants' economic integration, and therefore whether intermarried immigrants are economically better off than immigrants who marry other immigrants from their country of origin. Paper III contributes to this literature by using a precise definition of timing of the start of a relationship which helps to analyse whether and how intermarriage is related to income development for immigrants.

Paper IV addresses a previously neglected part of the intermarriage literature and focuses on fertility patterns of intermarried couples. By focusing not only on fertility levels but also on preference patterns, this study contributes to the question of fertility preferences of immigrants – particularly preferences for sons versus daughters – and how these realize in intermarried couples. Fertility preferences and behaviour are related to the demographic integration of immigrants. Intermarried immigrants might deviate from the particular fertility patterns of other immigrants from the same origin because the decision to have children is made jointly by both partners. Similarly, intermarried natives might also show fertility patterns that are different to majority natives who are not intermarried.

Context

The context under study is Sweden and Denmark from the 1980s to late 2000s. Three of the studies (Papers I, II and IV) are on Sweden. Papers I and II address patterns of educational and age homogamy in intermarriages compared to Swedish natives' marriages, which is why most of the background I provide on this matter (see *Context*) is on Sweden. Paper IV is on fertility patterns in intermarriages, and also the background section on immigrant fertility (see *Previous Research*) has a stronger focus on Sweden. In Paper III, I utilize Danish data to address the specific question of how immigrants' economic integration is related to the timing of the start of a union between immigrants and natives. Because this is a very specific question (which is not possible to answer using Swedish data), I provide less background information on context and marriage patterns in Denmark in general but do give a brief overview of immigration to Denmark and intermarriage patterns in Denmark (see *Context*).

Both countries have experienced large-scale immigration from various countries since the end of WWII, which makes them suitable for studying the research questions.¹ Being Scandinavian countries, Denmark and Sweden are known to have

¹ The particular focus of this dissertation is marriage between immigrants and natives. Descendants of immigrants, the so-called second generation, are not my primary interest. Among other things, this focus is related to the fact that the population of (married) second-generation immigrants is comparatively small in both countries and is limited to fewer origins.

lower income inequality (Aaberge et al. 2002) and higher social mobility (Erikson and Goldthorpe 1992) compared to many other countries, and Scandinavian countries are considered egalitarian in terms of gender equality (Goldscheider et al. 2015). Similarly, educational homogamy appears to be lower in Sweden than in many other countries, which is another indication of a rather open society (Smits et al. 1998). Thus, Sweden and Denmark during the period under study are particularly open and egalitarian societies by international standards. It is within this context that patterns of intermarriage, assortative mating, immigrant integration and preferences for children have to be understood.

Contribution

By providing a detailed account of how intermarriage relates to the different aspects of societal openness, this dissertation focuses on a previously neglected aspect of intermarriage; namely the perspective of the majority population. Two types of distinction are of particular importance in this regard: (1) that between marriage migrants and resident immigrants, because it contributes to the knowledge on why natives “recruit a partner from abroad” (Östh et al. 2011), and (2) that between race and immigrant status. The difference between the two has been neglected in the intermarriage literature but is important in order to fully understand the status of immigrants in the marriage market and to address the possibility of racial discrimination in the same. By focusing on the consequences of intermarriage, the dissertation contributes to a highly debated aspect of immigrant integration; namely the nexus between intermarriage and economic integration. By expanding the literature to include a previously understudied context and by using a better measure for the onset of an inter-ethnic relationship, the study contributes to solving problems previously identified with the approach used (Furtado and Trejo 2013) and shows how intermarriage contributes to immigrants’ income development. A much less debated aspect is the demographic integration of intermarried immigrants. The lack of literature on this aspect is surprising given that it received a vast amount of attention in the general literature on immigrant integration, and given that – for some origin groups – large fractions of men and women are intermarried. The demographic aspects of immigrant integration such as fertility patterns are, however, no less dependent on partner characteristics than is economic integration. On the contrary, fertility decisions are per definition joint endeavours. By strictly focusing on the couple and the partners’ (potentially conflicting) preferences, the study not only contributes to the intermarriage literature but also shows the importance of a couple design in the immigrant fertility literature more generally.

Clarifications

The term *intermarriage* has been used in various meanings and its definition is not straightforward. Any marriage between individuals from different social groups can be termed intermarriage. Hence, to avoid the term *intermarriage* being made synonymous with the term *marriage*, the social groups between which marriage becomes intermarriage have to be specified in terms of that considered relevant to the research question. In this dissertation, the term intermarriage denotes committed relationships between Swedes and immigrants (if not mentioned otherwise). Here the terms intermarriage and marriage more generally include non-marital cohabitation (with common children). In Sweden (in the period under study) the legal difference between formal marriages and cohabiting unions is small, particularly when children are involved (Björnberg 2001). The choice between marriage and non-marital cohabitation has become a question of a stage in the life course (Duvander 1999) rather than that of normative necessity (Hoem 1991), which makes it appropriate to use the term (inter)*marriage* to describe contemporary forms of committed relationships. However, this definition is partly data-driven, as non-marital cohabitation without common children cannot be identified in the Swedish register data. This shortcoming is not detrimental to the purpose of most of the studies in this dissertation, because couples who have common children – similar to the way in which they formalize their relationship by having a wedding ceremony – show a particular level of commitment. The only paper in which the inclusion of non-marital cohabitation is more important (because the start of relationship is important for the identification strategy) is Paper III. For this study I have made use of Danish register data, which contains information on all non-marital cohabitation.

In various other studies, and depending on the context, the term intermarriage is used interchangeably with (among others) the terms *binational marriage*, *cross-nativity marriage*, *mixed marriage*, *mixed-race marriage*, *inter-ethnic marriage*, *interracial marriage*, and *exogamy* (Rodríguez-García 2015). Even though I use the term intermarriage most often, I freely use the terms inter-ethnic marriage and exogamy as well without necessarily indicating a change in meaning. In Paper II, however, the terms interracial and immigrant-native marriages do indicate different concepts, as the core subject of the paper is about studying the difference between the two (see Paper II for further details). Paper III uses the terms *exogamous cohabitation* and *exogamous relationships* to emphasize the topic of study (see Paper III for further details).

The terms endogamy and exogamy often refer to in and out-group marriage (thus ethnic groups, religious groups, or immigrant groups), and are – since boundaries are fuzzy – sometimes used synonymously with homogamy and heterogamy. The latter, however, refers most often to marriage between people with dissimilar traits (such as level of education, income, or age). *Assortative mating*, or more specifically positive assortative mating, has the same description as homogamy, i.e. like will marry like

(Schwartz 2013). The term assortative mating, despite having its origins in the study of the reproductive behaviour of animal populations, is widely used in the literature to describe patterns of “non-random matching of individuals into relationships” (Schwartz 2013, 452); i.e., similar individuals preferring to partner with each other. When unions are not homogamous, they can follow patterns of (female) *hypergamy*; i.e., (women) marrying up in terms of education, status, or age, or else (female) *hypogamy*; i.e., (women) marrying down in terms of these characteristics. Even though the term hypergamy in the literature most often refers to female hypergamy, I use it in Paper I in gender-neutral fashion to facilitate the comparison between men and women. That is to say, hypergamy simply refers to marrying up in education or age (the partner has a higher education or is older). While with respect to education marrying up is assumed to be desirable, with respect to age the opposite – hypogamy – is assumed to be more desirable (see Paper I for further details).

Immigrants in this study are foreign-born persons, and their *country of origin* is their country of birth. The grounds for migration (as registered by authorities providing residence permits) may be to seek asylum (refugees), family reunification, or work and studies (Statistics Sweden 2015b). The literature uses the term *marriage migrants* to describe immigrants who migrate for the purpose either of living with their spouse or of marriage (Kofman 2004). The difference between these and other family reunion migrants is that they are assumed not to have lived with their partner beforehand but to have immigrated around the time of marriage. The literature often uses the term marriage migration to describe first-generation migrants who move to another country to live with first or second-generation immigrants from the same country of origin and already living in the other country (see for example Beck-Gernsheim 2007; Çelikaksoy et al. 2006); this type of migration is commonly described as *spouse import* (Mohn 2016). Marriage migration takes place, however, not only to ethnic minority spouses but also to natives (whom I define as persons without migrant backgrounds), which is often described in the literature as the gendered phenomenon of *mail-order marriage* (Chun 1996; for an overview see Beck and Beck-Gernsheim 2010). In this study, the term marriage migration is used to describe migration with the purpose of marrying a native. Marriage migrant is used as a neutral term, as it does not restrict immigrants to a particular sex (as implied in the term mail-order *bride*) or geographic origin, nor does it imply any underlying reasons for migration. I use this definition in line with Niedomysl et al. (2010).

The use of the term *race* is common practice in the American literature but is more contested in Europe. The use of the term in Europe’s recent history makes Europeans cautious about its application. For example, a European Union directive has stated that the European Union rejects theories which attempt to determine the existence of separate human races (European Union 2000; Al-Zubaidi 2012) yet acknowledges the existence of discrimination due to racial origin. In Europe, most countries do not collect data on race but instead ask about ethnic origin (in the form of questions regarding country of birth, parents’ country of birth, religion, language, and the like).

Statistics Sweden only collects data on the country of birth, citizenship, and parents' country of birth (Al-Zubaidi 2012). This practice is contrary to the practice in North America where, for example, censuses of the United States and Canada include a (self-reported) race question. The U.S. Census Bureau emphasizes, however, that the racial categories included in the census questionnaire reflect a social definition of race which is recognized in the country rather than make an attempt to define race biologically, anthropologically, or genetically (United States Census Bureau 2017). Race is a social construct (Anderson 2003; Saperstein and Penner 2012) and lacks a genetic base (Long and Kittles 2003; Templeton 2013), which has been widely acknowledged in the social sciences (American Sociological Association 2003). Definitions of human race based on phenotypical differences between humans (such as skin colour, hair texture, nose width, and lip thickness; Smedley and Smedley 2005) do, however, still exist (e.g. in Mayr 2002), and these definitions seem to coincide with perceptions of race among the general population. The use of the term race has been a sensitive one in Sweden since WWII, before which Sweden played a major role in promoting racial ideology and the idea of 'race science' (Hübinette 2017; for an example of the practice of racial biology during the 1920s and 1930s, see Kjellman 2017). From the 1960s onward, Sweden promoted the idea that *race* belongs to history or is of importance only in other countries (which resulted, for example, in *race* often being translated as *ethnicity* (etnicitet) in Swedish; Hübinette 2017). Paradoxically, while the use of the term race is avoided, the use of the term racism is not. The existence of racism is acknowledged, but there is no collecting of data on racial origin, which is not satisfactory from an anti-discrimination point of view (Al-Zubaidi 2012). In Paper 2 of this dissertation, I address racial discrimination in the marriage market and attempt to proxy race using country/region of birth (and parents' country of birth). While this is a rather unsatisfactory operationalization, it is the only way to address racial discrimination given the Swedish data available.

Theories of Inter marriage

For the individual, marriage provides opportunities for intimacy, emotional support, and companionship. It is one of the main contexts for having regular and safer sex and having children (Oppenheimer 1988). Marriage and the family are, however, also institutions of societal and economic importance. As societies change, institutions adjust. Over the course of the past centuries, the institution of marriage has experienced vast changes. From having a distinct role in the larger social order, it developed to become a privatized social institution based on romantic love. Rather than family interest or size of dowry, personal happiness has become the most important objective in the selection of a partner (Shorter 1975). Sociologists and economists nevertheless highlight the importance of the conjugal family for modern society. The following

section (*Economic Approaches towards Marriage and Intermarriage*) summarizes approaches that link marriage and the family to the modern economy. Both sociologists (Parsons) and economists (Becker) view the household division of labour as important for the core function of the family, a view that came to be criticized later (for example, by Oppenheimer 1988). While marriage and assortative mating patterns are widely covered by economic approaches, intermarriage is not. Specific theories regarding patterns of intermarriage were developed by sociologists and are discussed in the section *Sociological Approaches towards Intermarriage*. The last section of the theory section addresses theories on *Intermarriage and Immigrant Integration*.

Economic Approaches towards Marriage and Intermarriage

The Institution of Marriage: Why People Marry

In his macro-sociological approach, Talcott Parsons (1949) highlights the importance of a sexual division of labour in the family. For Parsons, the functional importance of the family lies in the specific character of solidarity that exists between group members and mutual affection. According to Parsons, the values practised in the family are confined by basic psychological human needs, and therefore the family is functionally important for society as such. To ensure the successful co-existence of such different systems as the family and the occupational sphere, which is characterized by discipline and achievement, Parsons sees the sexual division of labour as crucial because it ensures that only one member of the conjugal family is part of the occupational system. In this way the family is protected against the stresses that would come about where competition existed between its members, and this ensures solidarity between the members.

In his seminal work on the economics of the family, Gary Becker developed further Parsons' argument of the sex role division. According to his micro-economic approach, marriage and family are economic institutions that are production units. The outcome of these production units are *commodities*, such as the quality of meals, quality and quantity of children, prestige, companionship, love, and health. Commodities are produced by every household as a result of each household member's investment of time plus market goods and services. Commodities are largely unmarketable, which means that they cannot be purchased by single members but must be produced by households.² Households are most productive when the individual members' comparative advantages are fully utilized, i.e. based on household specialization (Cigno 1994). According to Becker (1973; 1993), biological differences between the sexes and different degrees of investment in human capital serve as a basis for the different roles assigned to men and women in the market and household respectively. In an efficient

² However, some of these are more purchasable than others: "Sexual gratification, cleaning, feeding, and other services can be purchased, but not *own* children" (Becker 1973, 818), emphasis in original.

household, women would specialize in household work while men would specialize in market work. While all unions sharing a household in which the members specialize in their respective areas enjoy comparative advantages over single-person households, marriage becomes necessary as a form of long-term contract demanded by women, who are economically more vulnerable in the case of household dissolution if they specialize in household activities and child-rearing.

Becker's assumptions about the nature of marriage make this incompatible with increasing female labour force participation and gender equality, and thus invite pessimistic predictions about the future of marriage in many Western societies. Increases in the earning power of women and female labour force participation reduce the gains of marriage, which according to Becker means an increase in non-marital cohabitation, reduced fertility, and increased divorce rates (Becker 1993). These assumptions have been questioned both empirically and theoretically. Oppenheimer (1997) states that the assumptions lack empirical support since women's economic independence has either no effect or indeed a positive effect on the propensity to marry (and not a negative effect as predicted by Becker's theoretical argument). Also, although divorce rates had increased substantially since the 1950s and 1960s (as stated by Becker), the trend in increased marital instability emerged earlier than the post-war rise in married women's labour force participation, which does not match with Becker's claims. Furthermore, one can ask the theoretical question of whether the gains of marriage are largest in specialized households. Specialization can be a risky and inflexible strategy for maintaining a family's economic well-being over time (Oppenheimer 1997).

"The vulnerabilities of extreme specialization tend to be overlooked by trading theory because, in the interests of developing a mathematically tractable model, it ignores the real-world exigencies shaping the adaptive strategies that actually emerge. In Becker's model, critical specialized personnel never get sick or die (at least not at inconvenient times), making them temporarily or permanently unable to fulfill vital functions. The husband/father never loses his job, thereby depriving his family of its sole source of earnings or of other employment-related benefits such as health insurance". (Oppenheimer 1994, 318)

Thus, flexibility in the roles of breadwinner or dual breadwinners in a household can be advantageous in situations of economic uncertainty or during critical events. In Oppenheimer's view, marriage is a flexible institution. Hence, increased female labour force participation results not in the abolishment of marriage as an institution but in the changing processes of assortative mating and the postponement of marriage (Oppenheimer 1988).

Assortative Mating: Who Marries Whom

In economic or economically oriented theories, the question of why people marry is directly related to the question of who marries whom, because the gains of marriage and household specialization are related to patterns of assortative mating. In Becker's approach, an efficient marriage market usually has positive assortative mating where likes marry likes; i.e. "high-quality men are matched with high-quality women and low-quality men with low-quality women" (Becker 1993, 108). The kind of trait on which assortative mating is based is, however, important. When traits are complements, positive assortative mating occurs because it increases productivity and commodity outcomes. Becker assumes this to be the case for most traits such as wealth, education, age, religion and race, and interprets the higher divorce rates of unions that are heterogamous with respect to these characteristics as support for his assumption that positive sorting is optimal. When traits are substitutes, however, negative assortative mating is optimal, which is the case with wages, for example. Low-wage partners would tend to pair with high-wage partners because these combinations ensure that men and women with cheaper time are used more extensively in household production.

Specific types of intermarriage are, however, rarely addressed theoretically in the economic literature. Because low intermarriage rates are not related only to opportunities, economic models have to account for ethnic and racial preferences. Fryer (2007) discusses the implications of Becker's approach for interracial marriage. Under the assumptions of an equilibrium market (i.e., the sorting that maximizes the total output over all marriages), the marriage market will segregate on race if race is a greater cost to household output (the production of *commodities*) than, for example, low education. If, however, the cost of race is less important than that of education, the marriage market would primarily sort on education (and, under the assumption of a small cost of intermarriage, secondarily on race). From Fryer's brief discussion, however, it remains unclear what the cost of race for the production of commodities is and why intermarriage has a social cost. If the cost of race is for example related to labour market discrimination, both minority and majority group members should have preferences for majority group members (which is not discussed by Fryer). If the cost of race is directly related to commodities (as implied by Fryer), both groups should have in-group preferences. By including, for example, "prestige and social standing" (Fryer, 2007, 88) in the production of commodities and "societal attitudes of interracial marriage" (ibid.) in environmental variables, Fryer includes in economic theories essential sociological concepts as assumptions. The contribution of economic theories for intermarriage beyond sociological theories then remains unclear. Grossbard-Shetman (1993) attempts to combine economic marriage market theory and sociological theories of compensatory social exchange (see the section on *Intermarriage and Status Exchange*). In her theoretical account, she addresses the specific case of inter-group marriage such as inter-religious marriage or inter-ethnic marriage. She addresses the conditions of in and out-group preferences more specifically and arrives at specific hypotheses of the determinants of intermarriage in the case of endogamy preferences

and general majority group preferences. Despite this being an economic approach, it relies heavily on sociological theories of group status in the marriage market and status exchange to explain the frequency of intermarriage and assortative mating patterns in intermarriages. I therefore review sociological theories of intermarriage in more detail in the following.

Sociological Approaches towards Intermarriage

Sociologists have done more than economists to address questions of why strong group boundaries towards intermarriage exist and whether the nature of intermarriage differs from endogamous native marriages. Despite the fact that no marriage restrictions exist in modern Western societies (except for a certain minimum age), and that everyone can marry almost anyone, “the patterns of choice show clearly that the number of eligibles is in fact highly restricted” (Goode 1964, 32).

Fields of Eligibles

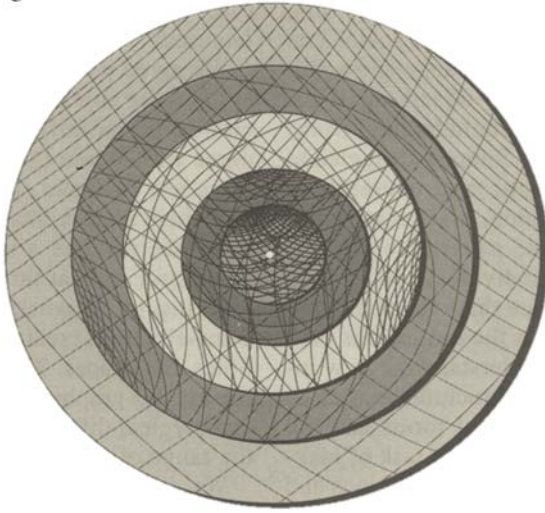
The marital match occurs at the interplay of three social forces: individual *preferences* for certain characteristics in a spouse, *opportunities* for realizing these preferences in the marriage market where individuals are searching for a spouse, and *third-party influences*. Third-party influences can manifest themselves through group sanctions (for example by parents, religious groups, or the state) or through “internalized norms of endogamy”, which according to Kalmijn (Kalmijn 1998, 400) are related to feelings of group identification that emerge during childhood socialization.³

The market analogy is typically used to describe the context in which the search for a spouse takes place. In the interplay of the three forces of preferences, opportunities and third party influences, the marriage market is not a free market in which only incidental mutual attraction makes a match. Rather, as Goode puts it, “as in economic exchanges, there are many smaller markets in which few are eligible to participate. It is within each such market that considerable freedom exists” (Goode 1964, 37f.). It would be bold to claim that romantic love is not the main constituting factor for most marriages in modern societies. It is, however, within these “fields of eligibles” (Winch et al. 1954), which are confined by factors such as wealth, occupation, education, age, religion, and ethnicity, that romantic love usually emerges (Goode 1964).

These fields of eligibles broaden with increasing modernization. According to Simmel’s theory of cross-cutting social circles (1923), individuals in traditional societies are part of concentric social circles. Within these, individuals are embedded in a larger social structure by belonging to any smaller group. The individual is embedded in a

³ Although not emphasized by Kalmijn (1998), it is likely that group identifications develop as one (cultural) preference among others – thus, the theoretical distinction between preferences and third-party influences becomes fuzzy.

family, the family is embedded in an occupational group, the occupational group is part of a guild, the guild is organized in a town, and the town could be part of the Hanseatic League. This organization of society is illustrated in Figure 1. Membership in a smaller social circle implies participation in any larger social circle. In the modern era, the individual is no longer at the centre of various circles but at the intersection of cross-cutting social circles. The membership of these social circles is characterized by a higher degree of choice, and these circles do not necessarily overlap. This is depicted in Figure 2.

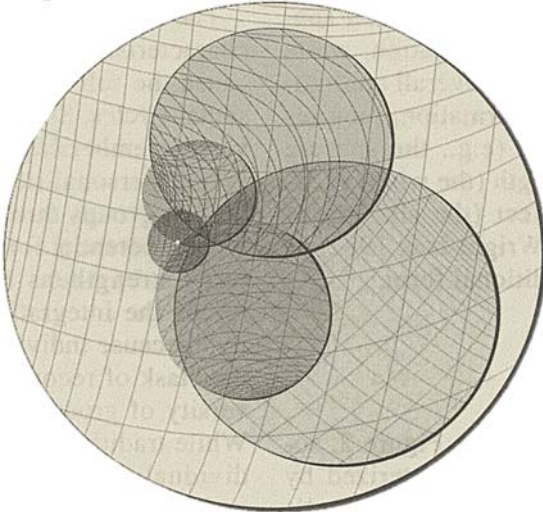


Source: Pescosolido and Rubin 2000

Figure 1 Concentric social circles in the premodern era

According to Simmel (1923), marriage occurs at the intersection between two (or more) social circles. Blau (1977) incorporates Simmel's concept of cross-cutting social circles into his deductive macro-sociological theory of social structure. Regarding intermarriage, here phrased more generally as marriage between social groups, the central idea of this theory is that these intersecting social circles promote intergroup relations despite general in-group preferences which are presupposed by Blau et al. (1984). The more that modern society diverges from premodern concentric social circles, the less two or more of these circles will overlap. In modern societies, a vast number of these intersections exist, which reduces the correlation between social attributes (such as ethnicity and income) and makes intermarriage (in its broadest meaning) inevitable. Because of the marginal overlap of several social circles, according to Blau et al. (1984) individuals will be able to realize only their most important homogamy preference. Which one is considered as the most important can, however, differ between individuals. Finding a spouse means having to relax other homogamy preferences, and thus intermarriage occurs. According to Blau et al., intermarriage occurs only as a by-product of realizing one's homogamy preferences in terms of certain

characteristics while relaxing these preferences in others. According to this understanding, intermarriages are the result of preferences (preference rankings) and opportunities (cross-cutting social circles). Hence intermarriage between immigrants and natives is only one intersection among others, such as social classes, income, and educational groups. Testing their hypotheses using U.S. data, Blau et al. (1984) show that more frequent intersections of the characteristics of the social structure lead to higher intermarriage rates, which also holds for ethnic and racial intermarriage even though racial intermarriage is rare (but more frequent when race intersects with other positions and attributes).



Source: Pescosolido and Rubin 2000

Figure 2 Intersecting social circles in the modern era

Blau et al. (1984) regard intermarriage as an indication of social integration; a view they share with other scholars (for example Goode 1964; Kalmijn 1998).

“Because marriage is an intimate and often long-term relationship, intermarriage [...] not only reveals the existence of interaction across group boundaries, it also shows that members of different groups accept each other as social equals. Intermarriage can thus be regarded as an intimate link between social groups; conversely, endogamy or homogamy can be regarded as a form of group closure” (Kalmijn 1998, 396).

The occurrence of intermarriage requires a certain social openness – on the part of the social structure, which is developed in so far that social circles intersect, and on the part of individuals, who regard potential out-group partners as marriageable and are willing to compromise on homogamy preferences that are not of the highest priority. Kalmijn (1998) assumes that individuals have strong preferences for socio-economic and cultural resources because spouses typically pool resources to produce family goods (preference for high socio-economic resources) and because individuals have

preferences for cultural similarity. Preferences for cultural similarity have their origin in the desire for similarity of values and opinion, which enhances mutual understanding, is a common basis for communication, and may facilitate joint endeavours such as raising children. Authors who regard intermarriage as a sign of social openness assume that it takes place between otherwise (i.e., economically, culturally) similar individuals, a view that is contested by the idea of status exchange in intermarriage.

Intermarriage and Status Exchange

According to Simmel's and Blau's theoretical conceptions, intermarriage is a sign that the strict endogamy rules of "Stände"-like social groups (see Weber 2010 [1921])⁴ have disappeared. The underlying assumption is that intermarriage does not occur in stratified societies that have "Stände"-like social groups. Davis (1941) and Merton (1941) show, however, that under certain conditions intermarriage can occur in stratified societies with strict boundaries between ethnic groups or castes. Moreover, they argue that intermarriage may be an integral part of the stratified social structure.

Davis' (1941) theoretical notions on intermarriage originate from observations of caste societies such as in India. Despite relatively strict rules on caste endogamy, he notices that inter-caste (or, more precisely, inter-subcaste) marriage frequently occurs not in a random fashion but in the highly institutionalized form of hypergamy. That is, men of a higher caste group marry women from a lower caste group, but not vice versa. Because caste membership is closely linked to social status, one can assume that this type of match implies a loosening of status for the upper-caste male. In this institutionalized form of intermarriage, however, the man is compensated for marrying down by other attractive characteristics of the bride (and therefore in terms of those characteristics the man marries up). Such characteristics can include beauty, intelligence, achievement, wealth, and youth. This type of marriage thus involves a status trade between spouses which balances out the spouses' marriage market-relevant characteristics (and thus makes them equal).

According to Davis, these institutionalized patterns of hypergamy are an integral part of a stratified social structure which is also found in non-caste societies like the United States⁵. However, in the context of the United States, black–white intermarriages have failed to follow the pattern of female hypergamy with regard to racial status. Instead, black–white intermarriages have typically involved a highly educated black male and a

⁴ Weber's definition of "Stände" refers to (usually premodern) communities that are not purely economically defined (such as classes) and are characterized by restrictions of social intercourse, particularly marriage. Both Davis (1941) and Merton (1941) refer to it to highlight the closure of certain racial and caste groups.

⁵ Davis refers here to the "racio-caste system" (Davis 1941) of the United States of the 1930s, before the general abolishment of anti-miscegenation laws in 1967. His reasoning thus relates to those states in which interracial marriage was legal at the time.

lower-class white female. These marriages thus follow a pattern of female racial hypogamy but class hypergamy. Davis (1941) argues that in a modern democracy like the United States, class – not caste – is the major constituting factor, and that race is a secondary factor, which is why white lower-class women can gain more by marrying a higher-class black man than a lower-class white man.

Basing his argument on Davis' remarks, Merton (1941) develops a more systematic account of interracial marriage in the United States. The combination of the (binary) categories of class, race and gender can be combined into sixteen logically possible race-class-gender combinations. Merton shows that, given the social structure, some interracial marriage combinations are far more likely to occur than others. In the racial stratification system of the United States, in which interracial marriage is sanctioned, the marriage of an upper-class black male and a lower-class white female is expected to be the most likely because it involves a reciprocal compensatory situation (whereas all other combinations would imply status loss for one of the partners). This pattern of women's racial caste hypogamy has to be understood in a context where family status hinges upon the man's (but not the woman's) occupational status. Female class hypergamy thus implies status gains for the woman which would not be so in the case of male class hypergamy (in the pairing of a lower-class white male and an upper-class black female; Merton 1941).

The gendered patterns of intermarriage as proposed by Merton match the argument put forward by Peres and Shrift (1978) regarding gender status. In societies where family status is attached to the man, intermarriage between majority men and minority women is more likely to be accepted by the majority because in this scenario ethnic status is consistent with gender status. Muhsam (1990), however, proposes the exact opposite. If men have higher status than women in both majority and minority groups, the status distance between majority men and minority women is larger than that between majority women and minority men, which is why he expects the latter combination to occur more frequently. However, Muhsam makes the general statement that each potential combination of minority and majority groups has to be analysed separately because the social status of a group can vary by gender. Observed gendered patterns of intermarriage in the U.S. are, for example, relatively frequent intermarriage between black men and white women as well as between Asian women and white men, but not between black women and white men and Asian men and white women (Jacobs and Labov 2002). Jacobs and Labov state that these gendered patterns of intermarriage are theoretically not in line with the propositions of status exchange theory. In their view, status exchange theory would predict disproportionate male intermarriages for all minority groups because in all groups men have more economic resources than do women. They claim that the overrepresentation of Asian women–American men marriages can to a large part be explained by the existence of *war brides*, although there does remain an overrepresentation of Asian women in intermarriage after accounting for this. Moreover, similar preferences (for black men and Asian women on the part of the white majority) are also found when focusing

solely on preferences (see, for example, Robnett and Feliciano 2011). Gendered patterns of intermarriage can accord with status exchange theory when the meaning of the term *status* is broadened. It is possible that patterns of status exchange are gendered when referring, say, to the commonplace assumption that majority men trade not for economic status but for beauty or youth (Elder 1969; Muhsam 1990). This traditional assumption has recently gained more attention in the status exchange literature, the assumption being that (mainly female) migrants trade youth for citizenship (Guetto and Azzolini 2015; Balistreri et al. 2017).

In light of the status exchange theory, intermarriage is *not* a sign of structural and individual openness but has to be understood within the social structure. If intermarriage takes place in the institutionalized form of status exchange, it builds on the social stratification of a society. Partners can agree on this kind of exchange only if belonging to certain groups (castes, ethnic, or racial groups) is mutually perceived to be related to status in the marriage market. Additionally, the type of exchange or the status of the group may be gendered. This does not, however, imply that status exchange is the result of “an explicit utilitarian calculus” (Merton 1941: 373). The match may be experienced by the partners involved as an affectionate, romantic relationship, but – according to Merton – this “psychic reaction” (Merton 1941: 373) – is structured by the organization of society; a point similarly made by Goode (1964).

The social structure in Sweden around the turn of the millennium certainly cannot be compared to Hindu caste societies or the racial structure in the United States of the 1930s. Moreover, family status hinges less upon the man’s occupational status and has become more equalized between partners. To which extent these theoretical notions of intermarriage are relevant to the case considered is still open to discussion in this dissertation. Immigrant-native intermarriage in contemporary Sweden cannot be described as inter-caste marriage which is subject to strict endogamy rules or norms. For Blau et al. (1984) inter-ethnic, interracial and inter-nativity marriages are only one type of intermarriage among others such as inter-class marriage and inter-occupational marriage. In his theoretical account, boundaries for inter-ethnic, interracial and inter-nativity marriage exist only in so far that these ascribed characteristics correlate with others (occupation, income etc.) and thus prohibit interaction (due to no intersecting of the circles). Status exchange theory, in contrast, emphasizes that intermarriage is related to the social structure in which some groups enter a higher rank than do others. Without an ethnic or racial hierarchy there is no need for (racial/ethnic) status exchange. Therefore the concept of whether an ethnic hierarchy can be applied to the context under study requires an answer.

In the European public discourse, *immigrants* as a social category have received particular attention, resulting in a reification of migrant groups (Silverstein 2005) which is comparable to the conception of race in the United States (Gullickson 2016). The particular “otherness” (Silverstein 2005, 366) of immigrants, which relates to a certain sentiment that an immigrant is a member of society of a different kind to the majority population, has received vast attention in the sociological literature. Simmel’s

“The Stranger” (Simmel 1923), the ideal type of immigrant, is depicted as being a member of the receiving context though not an integral part of that society. He is subjected to stay at a particular social distance by the receiving group because he lacks the organic relationship experienced by other members of the community in the form of, say, similar ways of living, norms and customs. Despite being part of the group, the stranger always implicitly infers to “the other”. Immigrants in modern societies resemble Simmel’s stranger since they represent – at least in popular discourse – a certain ‘otherness’ and are often contrasted with the presumably homogeneous majority population. However, modern societies are not necessarily characterized by the cohesion and organic relationships of their members. On the contrary, difference and diversity are constituting elements of functionally differentiated societies. The emphasis of the immigrant as a ‘stranger’ in modern societies is, according to Nassehi (1995), related to the nation state as an “imagined community” (Anderson 2003). The term *imagined community* implies that the political and often linguistic boundaries of the nation state can imbue in its members a feeling of societal unity which overlooks the actual diversity existing within the nation. Its members perceive the (national) majority group as a rather homogeneous group, because membership of a nation state creates a certain feeling of relatedness. This perceived relatedness of members of a nation state blurs the existing cultural variations within it and allows a contrast to be made principally between *immigrants* and *natives*.

The perceived principal otherness of immigrants in Europe puts the subject of this dissertation – immigrant-native intermarriages – in a category different to other types of intermarriage (inter-class marriage, inter-regional marriage and so forth). The fact that the immigrant/native category is neither the only division nor necessarily the most substantial one and that the immigrant category is nevertheless diverse has to be acknowledged both theoretically and empirically. Immigrants from different origins are subjected to vastly different boundaries – both legal and perceived.⁶ Therefore the empirical analyses and theoretical discussions refer to immigrants’ geographic origins. This categorization of immigrants is not always satisfactory but is a starting point for analysing the heterogeneity of intermarriage patterns.

Intermarriage and Immigrant Integration

Among the reasons for the academic interest in immigrant-native intermarriage is the idea that intermarriage is closely related to immigrant integration (Rodríguez-García 2015).

⁶ Immigrants from other Scandinavian countries in particular are an exception to this category, which is likely to be related to the shared history and language.

Intermarriage as an Outcome of the Integration Process

Milton Gordon's notions on *Assimilation in American Life* (Gordon 1964) are a common starting point for analysing the intermarriage/integration nexus. Assimilation is often understood as a one-sided process of immigrants' cultural and structural blending into mainstream society (Rodríguez-García 2010); however, Gordon (1964) discusses *Anglo-conformity* as one among several modes of assimilation). In Gordon's framework, immigrant-native intermarriage is the outcome of preceding cultural and structural assimilation, which is understood as adaptation to the dominant cultural patterns and a means of entry into the social groups, networks, and institutions of the majority population. While Gordon assumes that cultural assimilation (acculturation) occurs in close conjunction with the migration process, he does not expect entry into the majority population's primary groups and circles (structural assimilation) to occur as quickly as cultural assimilation. He does, however, regard structural assimilation as the most important stage of assimilation, after which large-scale intermarriage (marital assimilation), identificational assimilation and the general breakdown of ethnic barriers in the form of diminishing prejudices and discrimination are bound to happen. In Gordon's perception, intermarriage is inevitably linked to structural assimilation and is thus a sign of successful integration.

Various scholars have criticized Gordon's understanding of assimilation. The assumption of a homogeneous "core society" in which assimilation takes place has been regarded as an inadequate description of America's ethnic diversity because it basically ignores relationships between members of different ethnic minorities (see, for example, Alba and Nee 1997). Moreover, the view that complete assimilation and the dissolution of group boundaries are an outcome of structural assimilation has been questioned, because partial assimilation and intermarriage can indeed occur without intermarried couples being welcomed and included in mainstream society (Song 2009). Moreover, groups may be structurally assimilated without showing high rates of intermarriage, because "rules of endogamy" (Marcson 1950, 75) exist among minority groups (just as in the majority group) and a larger social distance between different groups influences marriage choices (Muhsam 1990). Particular characteristics that influence the social distance between groups are, for example, a group's religion and language (Kalmijn and van Tubergen 2010) as well as its average level of education (Kalmijn 2012). Also, the cultural concepts of third-party influences on marriage (i.e., to what extent the decision to marry is made by parents and other family members), which traditionally exist in countries such as India, Pakistan, and Saudi Arabia, determine a group's propensity to outmarry independent of structural integration (Kalmijn and van Tubergen 2010).

Given Gordon's specific account on the inter-relation between culture, ethnicity, and social structure, it is surprising that he did not take a more nuanced view on the concept of mainstream culture. Gordon is very explicit about the fact that *culture* distinguishes not only ethnic groups but also social classes from one another: "social classes, though not as precisely bounded as ethnic groups, also become sources of group identification, social areas of confinement for primary group relations, and bearers of

particular cultural patterns of behavior” (Gordon 1964, 46). In terms of cultural behaviour, Gordon describes social class differences as being more important than differences between ethnic groups, whereas in terms of social participation in primary groups both social class and ethnic group are organizing factors (which he acknowledges by using the particular term *ethclass*). Thus, although he recognizes that American society and culture consist of different strata and are multi-ethnic, he defines white protestant middle-class America as the country’s “core society” (Gordon 1964, 72). This means that the processes of “segmented assimilation” (Portes and Zhou 1993) into certain sub-strata of the society remain overlooked. Gordon also disregards the specific quality which can link intermarriage to the social structure and which was highlighted by Davis (1941) and Merton (1941); namely, (gendered) patterns of hypergamy. In their view, intermarriage is not related to successful structural assimilation but rather is a result of structural inequality. Thus, in Gordon’s perception, a society’s social structure requires a certain quality of openness for immigrants to integrate structurally and for intermarriage to occur (which is in this regard similar to Blau’s approach). For Davis and Merton, it is on the contrary the specific quality of a social hierarchy within the social structure that leads to intermarriage.

Immigrant Integration as an Outcome of Intermarriage

Furthermore, the direction of causality in the connection between marital and structural assimilation as proposed by Gordon has been questioned (Alba and Nee 1997; Song 2009). Even if intermarriage may follow on from other types of assimilation such as general social inclusion in the majority’s groups and networks, this is not necessarily the case. In the case of marriage migration particularly, when natives find spouses from partner markets outside the national market – typically in non-European countries (Kofman 2004) – it is obvious that intermarriage is not the outcome of preceding integration. Thus, the relationship between intermarriage and integration can be bi-directional. Intermarriage can be the outcome of integration, but it also has a particular potential for initiating and fostering immigrant integration. Partnerships with natives provide a particular environment that facilitates immigrants’ integration by accelerating the process of language acquisition in that country, providing rapid access to native networks, and also encouraging identificational assimilation. National identity adaptation in mixed couples is likely to occur differently to that in endogamous couples, and relationships with natives in their home country provide a different emphasis on the permanence of the migration process. These peculiarities of immigrant/native intermarriages are likely to alter the speed and depth of the assimilation process for intermarried migrants (Scott and Cartledge 2009).

A particular aspect of this intermarriage/integration nexus is the question of whether intermarriage contributes to immigrants’ economic integration. In Chiswick’s influential (yet criticized, cf. Borjas 1985) article on the effects of assimilation on immigrants earnings (1978), immigrant men’s earnings are expected to be an outcome of formal skills, ability and motivation *and* of time since migration. Time since

migration captures the immigrant's assimilation (or *Americanization*), a process in which they acquire knowledge of the language and customs and the nature of the labour market. Because "knowledge and skills are not perfectly mobile across countries" (Chiswick 1978, 899), immigrants initially experience earnings below those of natives but then see a gradual increase in these parallel to their assimilation. However, female migrants, who are outside the focus of Chiswick's analysis, experience earnings trajectories that are quite different to their male counterparts, as found by Long (1980): time since migration has a negative impact on female immigrant's earnings. By extending Chiswick's argument, Long hypothesizes that family dynamics are crucial in explaining both male and female earnings development after migration. In line with Chiswick's assumption that male immigrants have to invest in human capital acquisition in the period after migration, Long proposes that women initially work more to finance their spouses' human capital investments, but retreat from the labour market when their husbands become economically integrated. Thus, Long proposes the importance of *partner effects* for immigrants' economic integration (van Tubergen 2008).

The partner's importance depends not only on his or her relative labour supply, as suggested by Long (1980), but also – and even more so in the case of intermarriage – on the partner's characteristics. Seen from this theoretical perspective, the partner is part of an individual's social network and contributes to the individual's social capital (for a general overview of this strand of literature, see Lin 1999). The specificity of marriage is, therefore, that there are greater incentives to share one's knowledge and networks and that sharing is easier due to frequent intra-household communication. This hypothesis, which was first formulated by Benham (1974), has been termed in the literature as *spillover theory*. It assumes that spouses' human capital can be shared within marriage by providing either information and advice or help to acquire general and specific skills. Benham emphasizes the general importance of the wife's education for husbands' earnings in all marriages. The processes of human capital spillover are, however, likely to be most relevant in immigrant–native intermarriages because the specific *milieu* of an intermarriage (Scott and Cartledge 2009) provides opportunities for the immigrant spouse to acquire destination-country human capital. The native spouse usually has knowledge that the immigrant spouse lacks, such as information about rules and customs and, not least, support for host-country language acquisition. The importance of human capital spillover for immigrants' labour market integration is likely to differ across immigrant groups. Immigrants from origins with greater differences in terms of culture and language are often the ones who have most difficulty in terms of labour market integration, and are likely to benefit more from a native partner than, for example, immigrants from neighbouring countries. As well as human capital, other studies emphasize the role of spousal support in the form of native networks (Furtado and Theodoropoulos 2010) and the financing of additional human capital investments (Kenny 1983), which are likely to be important for all immigrant groups. The additional resources immigrants acquire when they are in a relationship

with a native can positively influence their economic integration by opening up opportunities for job changes or wage increases.

Summary

Classic theories of marriage such as those proposed by Parsons (1949) and Becker (1993) view the gendered division of labour to be crucial to the institution of marriage in modern society. While for Parsons the separate spheres are necessary to reduce marital conflict and maintain the solidary unit, in Becker's theoretical argument only the specialized household (in which women completely specialize as home makers) is efficient. For the context under study, these theoretical approaches are less important. In post-1990 Sweden, women who fully specialize in household tasks are virtually non-existent and the boundaries between marriage and non-marital cohabitation have blurred (see section *The Changing Institution of Marriage*). A general assumption by Becker is that everyone operates in the same marriage market but that positive assortative mating generally is advantageous for the production of commodities. Sociological theories emphasize more the possibilities of segregated marriage markets. In Blau's (1984) theoretical account, a certain openness of the social structure is a prerequisite for intermarriage to occur. While for Blau structural openness is a general characteristic of modern societies, Gordon (1964) applies a similar argument to immigrant integration. In his view, structural assimilation gives the opportunities for contact and subsequently intermarriage. However, the status exchange approach taken by Davis (1941) and Merton (1941) emphasizes that intermarriage is not necessarily an indication of successful structural and social integration. This approach assumes that marital preferences are related to (among other things) group status and prestige. Despite their potentially being structurally integrated, certain groups may nevertheless be excluded from the majority's marriage market or may have to pay a price for being included. While these theories are based on societies that are highly segregated by caste and race, two studies in this dissertation (Papers I and II) ask whether similar structures of inequality also apply to immigrant-native intermarriages in contemporary Sweden, and examine whether the notion of an ethnic and racial hierarchy is important in describing the social structure in contemporary Sweden. In order to study ethnic hierarchies and patterns of status exchange, I focus on patterns of assortative mating. While economic theories address assortative mating mainly with respect to the household division of labour, status exchange theory relates patterns of assortative mating to status and prestige in the marriage market. The studies thus ask whether assortative mating differs in terms of endogamy and exogamy and also in terms of characteristics such as immigrant origin and race.

The existence of status exchange would indicate that immigrant status and race are decisive characteristics in the marriage market and that therefore (social) integration is not fully achieved (which would oppose Gordon's view of intermarriage as being the

final stage of assimilation). Two studies in this dissertation (Papers III and IV) are, however, concerned with how intermarriage contributes to immigrant integration. Immigrant-native partnerships provide a particular environment that facilitates immigrant integration in economic terms, since they provide opportunities for human capital spillover (such as native language acquisition) and networks and, in non-economic terms, since they encourage cultural and identificational assimilation.

Previous Research

Studies on the Frequency of Intermarriage

Early studies on intermarriage emerged in the U.S. literature in the first half of the twentieth century, and had a particular focus on (religious) boundaries for intermarriage between different groups of European ancestry. These studies show that religious and ethnic boundaries were strong at the beginning of the twentieth century (Drachler 1921; Kennedy 1944; see also Pagnini and Morgan 1990) but over time the boundaries between different groups of European ancestry have eroded (Alba and Kessler 1979). The boundaries did, however, remain salient between groups of European and non-European ancestry (Alba and Golden 1986), especially in form of racial endogamy which in the United States has always been stronger than the endogamy of religious groups (Rosenfeld 2008). At the turn of the twentieth century, racial endogamy was highest among blacks, followed by whites and Asians. Despite a sharp decline in racial endogamy, racial barriers are still existent and stronger than any other kinds of barriers in the marriage market (Rosenfeld 2008). Studies on the prevalence of interracial marriage (i.e., black-white intermarriage) can be found from the mid-twentieth century onwards (for example Heer 1966), and there was increased academic interest in racial intermarriage following the publication of two theoretical articles by Davis (1941) and Merton (1941) (for example, Heer 1974 and Monahan 1976).

Renewed interest in the exogamy patterns of various racial minority groups has emerged since the 1990s. Particularly for Hispanics and blacks, breaking the racial barrier to intermarriage is easier for men and women with a higher education (Qian 1997; Qian 1999). Rosenfeld (2008), however, concludes that (on a group level) higher education has little effect on racial endogamy for blacks and whites. While the tendency towards racial endogamy is slightly lower for the highly educated than for the lower educated, racial endogamy is nevertheless the dominant pattern among highly educated blacks and whites. Asians show generally different patterns of intermarriage, because Asians who marry interracially tend to have lower socio-economic status than their endogamously married counterparts and because they tend to marry a person with

lower socio-economic status than their own (Hwang et al. 1995). Thus for Asians structural assimilation is not necessarily related to intermarriage (Hwang et al. 1997; Fu and Hatfield 2008), although there is large variation within the Asian group (Qian et al. 2001). Hispanics have relatively high intermarriage rates with whites independent of education (Qian and Lichter 2007), although Latino immigrants are more likely to marry same-race immigrants and natives than whites (Qian and Lichter 2001). Increased immigration from Latin America therefore led to a slow-down in the increase in interracial marriages among the Hispanic and Latino population, because a larger pool of potential partners from their own ethnic or pan-ethnic group became available (Qian and Lichter 2011; Qian et al. 2012). Moreover, racial differences within the Hispanic group are associated with different pathways of marital assimilation (Qian et al. 2017). In the United States, the racial divide not only creates marriage barriers for the native-born population but also operates in similar fashion for immigrants (Lichter et al. 2015).

This strong racial divide in marriage formation is more forceful in the U.S. than in other contexts, while in Western Europe religion appears to have a similarly strong divide (Lucassen and Laarman 2009). The religious divide manifests itself especially in strong tendencies towards endogamy among Muslim immigrants and their descendants (Alba and Foner 2015), which has not been found for the United States (Kulczycki and Lobo 2002). Because religious endogamy in the case of Europe overlaps with the effects of social exclusion, it is impossible to discern which of the two is more important in explaining the low rates of intermarriage between Muslims and the native majority (Alba and Foner 2015). Religion appears to be an important factor for endogamy regardless of migratory background (guest workers or colonial migrants; Lucassen and Laarman 2009). Muslims, Hindus and Sikhs in the UK, who predominantly originate from South Asia, show comparable levels of endogamy (Voas 2009) which appear not to be related to the compositional factors of these groups (Muttarak and Heath 2010). Similarly, compositional factors cannot entirely explain the different propensities of immigrant groups to intermarry in France where, besides European immigrants, North African (particularly Tunisian) men display a high propensity to intermarry with French women in contrast to Sub-Saharan African, Turkish, or Asian immigrants (Safi and Rogers 2008). Similar findings have been found for Belgium, where Moroccan and Algerian immigrants show higher propensities to intermarry than Turkish immigrants, which cannot be explained by compositional factors (Dupont et al. 2017). In Germany, Turks show lower rates of exogamy than other foreign guest workers, although these can be explained by the compositional differences of the group (Klein 2001; González-Ferrer 2006).

Despite differences in the origins and composition of immigrant groups in the European countries, both individual factors and contextual factors have an effect on exogamy. The most important contextual factors identified by several studies are immigrant group size, sex composition, and settlement patterns. Individual factors such as socio-economic status, language ability and length of stay have been found to be very

important in all contexts (for an overview, see Kulu and González-Ferrer 2014). Moreover, in many European countries, intermarriages with nationals from neighbouring countries are particularly common (de Valk and Medrano 2014).

Similar patterns have been found for the countries under study. Several studies consistently show that contextual factors such as group size, sex ratios and individual factors such as higher education and length of stay in Sweden are related to immigrant exogamy (Çelikaksoy et al. 2010; Dribe and Lundh 2008; Dribe and Lundh 2011). Independent of group composition, immigrants from Western origins and immigrants with more similar value systems have higher intermarriage rates, but also Asian women, particularly from Thailand and the Philippines, stand out in terms of high intermarriage rates (Behtoui 2010; Dribe and Lundh 2008; Dribe and Lundh 2011). Research on immigrant-native intermarriage in Denmark is very limited, since the focus there has been more on the endogamous marriage patterns in Denmark's immigrant population, particularly marriage migration to Turks and Pakistanis living in Denmark (Çelikaksoy et al. 2006; Çelikaksoy 2007; Jakobsen and Liversage 2016). Intermarriages between Danes and European immigrants are most common for Danish women, while for Danish men, marriage with an Asian woman as an alternative to that with a European immigrant is also very common (Tegunimataka 2017).

As noted in the theory section (*Intermarriage and Status Exchange*), patterns of intermarriage are often gendered. In many countries, more foreign-born women than foreign-born men are intermarried, and the reverse applies to natives. These patterns are often related to selective immigration and the structural constraints of the immigrants' marriage market (Kulu and González-Ferrer 2014). They are, however, also related to selective marriage patterns in the native majority population. The frequency of intermarriage involving Thai and Filipino women in Sweden (Dribe and Lundh 2008) can to a great extent be explained by gendered patterns of marriage migration, particularly native men marrying women from economically poorer countries (a pattern that – on a smaller scale – also applies to native women; de Valk and Medrano 2014). Nonetheless, studies taking into account the native side of intermarriage are comparatively rare. They often show that native men who intermarry are more often lower educated and have a lower income (Guetto and Azzolini 2015; Haandrikman 2014), are older (Glowsky 2007b; Guetto and Azzolini 2015; Niedomysl et al. 2010), and may encounter difficulties finding an attractive partner in the endogamous native marriage market, which might be related to their age (Glowsky 2007b) or to a local shortage of native women (Östh et al. 2011). Repartnering patterns in Sweden show that there exists a certain proneness among both native men and women towards intermarriage since an increased probability of intermarrying again after a failed intermarriage is observed (Obućina 2016).

Studies on Assortative Mating Patterns in Intermarriages

As the research on the frequency of intermarriage in different contexts has shown, intermarriage rates are a function of opportunity structures, compositional factors and immigrants' endogamy preferences. Equally important contributing factors for intermarriage are, however, the endogamy and exogamy preferences of the native majority population, which differ with respect to different immigrant groups. As well as studying the *frequency* of intermarriages, a particular focus in the literature has been to study their *nature* (Alba and Foner 2015) which is related to the question of whether intermarriages are a sign of ethnic boundaries that have been overcome in the society or whether they reflect ethnic boundaries. In societies in which certain racial or immigrant groups have a higher social standing than others, a large amount of research has been devoted to analysing whether intermarriages are related to the status considerations of the native majority and thus subject to status exchange.

When marriage choices depart from homogamy, they can take the form of exchange such as that between one partner's socio-economic status and the other partner's non-economic status, examples of this being the exchange of income for age and of education for race (Schoen and Wooldredge 1989). This general form of exchange has received much attention in the form of social class and racial caste exchange (based on Davis' (1941) and Merton's (1941) status exchange hypothesis; see *Intermarriage and Status Exchange*). According to this view it is expected that compensatory status exchange in racially stratified societies occurs whereby the partner with inferior racial status (such as the black male) compensates for the superior racial status of his spouse (such as the white female). Since educational homogamy is dominant even in interracial marriages, most authors expect patterns of hypogamy and hypergamy to differ *relative* to intra-racial unions (Gullickson 2006). Modelling status exchange then requires a distinguishing of status exchange patterns from random patterns that occur given a certain distribution of education among minority and majority groups, which has prompted a methodological debate about adequate modelling and the use of different types of log-linear models (Rosenfeld 2005; Gullickson and Fu 2010; Rosenfeld 2010; Kalmijn 2010; Schwartz et al. 2016; for an overview see Hou and Myles 2013). Most studies confirm status exchange in the form of black husband–white wife intermarriages, but the evidence for educational status exchange in other racial pairings, reverse gender patterns or different contexts is rather mixed.

Comparing the number of women marrying up in terms of education to the number marrying down in endogamous and exogamous marriages, Kalmijn (1993) finds strong indications of persisting status exchange in black-white intermarriages in the United States in the period 1970 to 1983. Applying the same method (which is called hypergamy ratios), Qian (1997) comes to similar conclusions about white hypergamy but nevertheless emphasizes that the majority of interracial marriages are educationally homogamous, while Blackwell and Lichter (2000) find evidence for status exchange in interracial marriages but not cohabitations. A different approach to conceptualizing

status exchange is taken by Fu (2001), who criticizes the focus on the way education differs between partners (the joint distribution of education) as being a misconception of the status exchange hypothesis, and who posits that a more direct test should focus on the desirability of different group members in the marriage market. He therefore focuses on each partner's own educational attainment as a determinant for exogamy and finds support for status exchange among black/Mexican American–white marriages. This approach has, however, been criticized by Gullickson (2006) who sees the joint distribution of education as being at the core of status exchange theory and finds some support for status exchange theory from his analysis, although only in the case of black male-white female couples. In a later analysis of status exchange patterns in Brazil, Gullickson and Torche (2014) distinguish between *market exchange* (Fu's approach) and the more conventional *dyadic exchange* (relating to spouses' joint distribution of education). Initially, they found strong evidence for dyadic exchange which disappears, however, when market exchange is accounted for. Recent studies have adopted Gullickson's and Torche's approach and come to similar conclusions. Patterns of status exchange hence seem rather to emerge from educational boundaries that define partners' attractiveness in the marriage market more than does direct exchange (see Mohn 2016 for Norway; Torche and Rich 2016 for the U.S.).

No evidence of status exchange was found by Rosenfeld for the U.S. (2005) and Hou and Myles (2013) for Canada (although these nevertheless found modest support for the U.S.). Weaker support for status exchange is found for Australia (2012) and the Netherlands (Kalmijn and Tubergen 2006), and more complex patterns of status exchange are found for Italy (Guetto and Azzolini 2015). Most measures of status exchange are concerned with educational status exchange, but evidence for status exchange has also been found in other dimensions such as job prestige and income (Fu 2008b), spouse's age (Guetto and Azzolini 2015), and attractiveness in terms of age difference and BMI difference (Glowsky 2007a). Moreover, Azzolini and Guetto (2017) provide convincing evidence for the particularities of status exchange in the European context. Rather than relying on ambiguous notions of ethnic status that determine the exchange, they show that for non-EU immigrants in Italy a powerful motivation behind the exchange of status is obtaining European citizenship. A recent study by Balistreri et al. (2017) confirms patterns of age-citizenship exchange for the U.S. as well.

With regard to assortative mating patterns in Swedish intermarriages, native men more often have a lower education than their immigrant wives, particularly when the immigrant partner comes from a non-Western middle or low-income country (Behtoui 2010). In a descriptive account of the characteristics of marriage migrants to natives, Niedomysl et al. (2010) show that these immigrants are more often more highly educated than their Swedish partners and that immigrant women are more often younger than their Swedish partners. These results can be seen as an indication of status exchange in intermarriages, but the empirical test of the hypothesis is rather limited in these studies.

The notion of status exchange builds on the assumption of an ethnic or racial hierarchy in a society, which contributes to the structuring of the marriage market. Several studies have attempted to address the question of a racial hierarchy in the marriage market more directly. Particularly prominent have been recent studies on online dating, because this kind of behavioural data provides opportunities for identifying racial preferences in a more unequivocal way. Evidence for a racial hierarchy in the online dating market has been found for the United States (Lin and Lundquist 2013), and several European countries, among them Sweden (Potârcă and Mills 2015). Further evidence for ethnic preferences in the Swedish partner market has been found in studies using more experimental designs (such as the study by Jakobsson and Lindholm (2014) which combines an experimental design with online dating data) and survey-based studies (Snellman and Ekehammar 2005; Osanami Törnngren 2016). These studies consistently show that in Sweden, as in many other European countries, immigrants' origins are related to their attractiveness as potential partners. In this ethnic hierarchy, Europeans rank at the top, followed by those who are Hispanic and Latino, Asian, African and Arab, the latter being at the bottom of the hierarchy.

Studies on Consequences of Inter marriage

Most of the studies cited above have been concerned with questions regarding the determinants of immigrants and natives to intermarry. Generally, better integrated immigrants are more likely to intermarry; in this line of research, therefore, intermarriage is regarded as an outcome of immigrant integration. In a different strand of the literature, studies have addressed the social consequences of intermarriage, particularly for immigrants' economic integration.

Economic Integration

The literature most firmly established on the consequences of intermarriage concerns the link between intermarriage and immigrants' economic integration. Although studies on the economic integration of intermarried immigrants have emerged mainly since the 2000s, the role of family composition for immigrants' labour supply and income development has received some attention in the classic economic literature (Long 1980; Baker and Benjamin 1997); however, the discussion has remained largely restricted to the family investment strategies of endogamously married immigrants. Later studies have mainly focused on the difference in economic integration between endogamous and exogamous immigrants. In the United States, immigrants married to natives have higher earnings than immigrants married to other immigrants, and these intermarriage wage premiums have increased over time (Furtado and Song 2015). A positive association between intermarriage and labour market integration has also been found for other contexts such as Germany (Nottmeyer 2010b) and Sweden (Dribe and Lundh 2008). Many studies have been concerned with the question of whether these

associations can be attributed to the immigrants' characteristics or whether they are a causal effect of intermarriage itself (being in a relationship with a *native*). Different methodology has been used to tackle this question but no agreement on the causal effects of intermarriage has been achieved. Several studies have attempted to exploit potentially exogenous variation in the opportunities for marrying natives (such as immigrant group size and sex composition), and these concluded that intermarriage wage premiums persisted when controlling for selection into intermarriage (Meng and Gregory 2005 on Australia; Meng and Meurs 2009 on France). Using similar instruments, Furtado and Theodoropoulos (2009) find positive effects of intermarriage on immigrant's employment opportunities in the United States, which they explain in terms of returns to native networks (Furtado and Theodoropoulos 2010). Other authors who use U.S. data are Kantarevic (2004) who, however, argues against an intermarriage premium by using a different specification of the commonly used instruments, and Chi (2015), who shows that the magnitude of the intermarriage premium in the United States does indeed hinge upon the estimation technique and varies for different immigrant groups. Other studies have chosen to account for selection into intermarriage by using panel data techniques, and they typically find a reduction of intermarriage premiums when accounting for unobserved individual characteristics. While Nottmeyer (2010a) and Nekby (2010) find no overall intermarriage premium, Dribe and Nystedt (2015) and Mohn (2016) show that the existence of an intermarriage premium varies by immigrant origin.

These different approaches are somewhat problematic in that these studies draw very different conclusions on the nature of selection into intermarriage. While immigrants are generally viewed to be positively selected into intermarriage on observable human capital characteristics (see, for example, Chiswick and Houseworth 2011), several studies using an instrumental variable approach conclude that immigrants are negatively selected on unobservable characteristics (Meng and Gregory 2005; Meng and Meurs 2009; Muttarak 2011), whereas studies using panel methods generally conclude that immigrants are positively selected on unobservable characteristics as well (Dribe and Nystedt 2015; Mohn 2016; Nekby 2010; Nottmeyer 2010b). There are, however, methodological concerns regarding both approaches. The exogeneity of the instruments can be questioned as they do not take into account selective migration patterns. Panel data methods do not generally account for all unobserved heterogeneity, and may be misleading as a result of too short panels which do not allow observation of the emergence of intermarriage premiums after marriage. Furthermore, because the timing of union formation and the registrations considered by these approaches are particularly important, the use of the actual wedding date as the theoretical onset of marriage premiums may give misleading results. Many of the returns to the choice of a native partner may indeed occur before the actual wedding ceremony (Furtado and Trejo 2013).

Immigrant Fertility

Consequences other than immigrants' economic integration through intermarriage have been explored to a much smaller extent. Studies on intermarried immigrants' demographic integration such as fertility patterns in intermarriages are largely missing. In the general literature on immigrant integration, fertility behaviour adaptation is considered to be one aspect of immigrant assimilation. Immigrants are expected to gradually change their fertility behaviour and adopt that of the destination country as the influence of the origin social environment decreases (Kahn 1988; Mayer and Riphahn 2000).

In many European countries, immigrant women have higher total fertility rates than native women. Over time the fertility levels of immigrants and natives converge, although complete convergence is seldom observed. The higher fertility levels do, however, mask large variations between immigrant groups since there are some in particular who come from non-European countries (such as Bangladeshi, Moroccan, and Pakistani immigrant groups as well as those from some parts of sub-Saharan Africa) who have much higher fertility rates than the native population (Sobotka 2008). Using longitudinal data, Andersson (2004) was able to show that the likelihood of experiencing childbirth was higher for migrants during the first years after immigration to Sweden, but that the fertility levels of immigrants adapted to Swedish levels after a period of residence in Sweden. These findings were confirmed by other studies on Germany (Milewski 2007), and for family migrants in Italy (Mussino and Strozza 2012).

Fertility adaptation has been studied not only over time but also over generations. Despite some indication that high origin fertility levels also persist among second-generation immigrants, the general picture is one of adaptation over generations since second-generation immigrants' fertility levels often resemble fertility levels in the destination country (see, for example, Blau et al. 2013; Milewski 2010; Scott and Stanfors 2011 on Sweden). However, since both factors of fertility convergence – *within* generations and *across* generations – are at work, cross-sectional studies of convergence across immigrant generations can lead to results different from intergenerational studies of fertility convergence (Parrado and Morgan 2008).

Thus, these studies have found variations of fertility levels with regard to time, immigrant generation, as well as other characteristics of the mother. Because children are born to mothers, many studies on immigrant fertility choose not to focus on the father's characteristics. Particularly surprising is how little use has been made of the information on the father's origin; i.e., if the father himself is a first or second-generation immigrant or belongs to the native majority. Information on the father's background is included in just a few studies (for example, Kahn 1988; Andersson and Scott 2007), and to my knowledge only one study (Fu 2008a) explicitly focuses on intermarried couples' fertility. This lack of studies which focus on the fertility consequences of intermarriage is rather surprising given that intermarriage is often seen to contribute to weakening social boundaries and can be regarded as an additional

measure of immigrant integration contributing to the adaptation of fertility behaviour. The question of whether intermarried spouses adapt their fertility behaviour to the immigrant spouse has also been outside the focus of research. Fu's (2008a) study on fertility levels in inter-ethnic unions in the United States shows that fertility is similar among white endogamous and most inter-ethnic couples, but slightly higher among Chinese, Indian, and Filipino endogamous couples.

Another area of focus in the literature apart from immigrant's fertility levels has been immigrants' sex preferences for children. Particular focus has been on immigrants who originate from countries with strong son preferences and migrate to Western countries with less distinct sex preferences for children (Abrevaya 2009; Almond and Edlund 2008; Almond et al. 2013; Dubuc and Coleman 2007; Mussino et al. 2017 on Sweden). Fertility behaviour with respect to sex preferences for children is yet another dimension of immigrant adaptation apart from fertility levels, but this has not been addressed for intermarried immigrants.

Summary

The frequency of intermarriage is very much related to the particular context under study and its historical experience. There exist particularly strong barriers towards interracial marriage in the U.S. and religious intermarriage in Europe. The majority of studies on immigrant-native intermarriage focuses on immigrants' intermarriage rates, which have been found to depend on contextual factors such as group size, sex composition and residential segregation as well as individual factors such as level of education and length of stay in the destination country (see Kulu and González-Ferrer 2014 for an overview). Generally, frequent intermarriage with nationals from neighbouring countries has been observed (de Valk and Medrano 2014). Similar patterns have also been found for the two countries under study, Sweden and Denmark. Frequent intermarriage occurs not only with immigrants from neighbouring countries but also between native men and Asian immigrants (Dribe and Lundh 2008; Tegunimataka 2017). Besides the frequency of intermarriage, much of the focus in the U.S. literature has been on status exchange in interracial marriages (e.g. Gullickson 2006), and evidence of the existence of status exchange patterns in intermarriages in the U.S. and in other contexts has been mixed. In Sweden, some descriptive findings point towards potential patterns of status exchange between natives and some immigrant groups (Behtoui 2010; Niedomysl et al. 2010); however, this has not been explored further.

In the economic and demographic literature, the consequences of intermarriage for the economic integration of immigrants have received much attention. Because the existing studies are on many different contexts and immigrant groups and use different methodology, no consensus on the causal effect of intermarriage on immigrant integration has been achieved. Other consequences of intermarriage, such as the

demographic integration of immigrants, have not received much attention in the literature. To my knowledge, the only study on intermarried couples' fertility is that by Fu (2008a), which shows that fertility levels among intermarried couples are similar to those of the white majority. To summarize, a review of the literature generally shows that the focus of the U.S. and European literature is quite different. While the U.S. literature focuses largely on interracial marriages (with less focus on the nativity of partners), the European literature focuses largely on intermarried immigrants. Intermarried natives have, however, received much less attention.

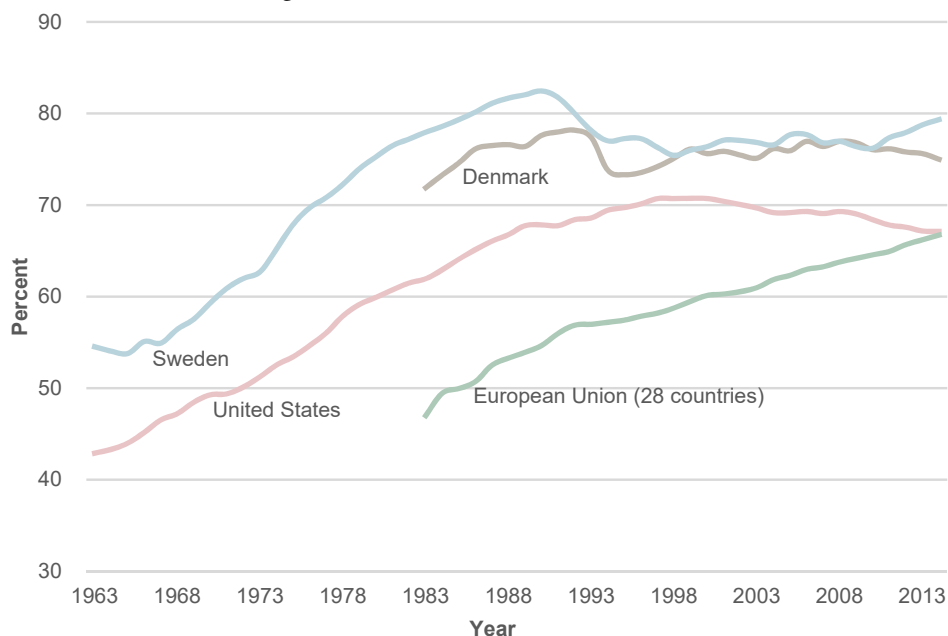
Context

Marriage patterns in general and intermarriage patterns in particular have to be understood in their particular historical and societal context. The period under study is formed by post-war economic development which led to encompassing changes in the societies of the Nordic countries and had wide-ranging consequences for marriage patterns: it was a period of increasing gender equality which led to a change in the meaning of marriage, and it was a period of large-scale immigration (first to Sweden, then to other Scandinavian countries) which led to an increasing prevalence of immigrant-native intermarriages. The migration histories of Sweden and Denmark and the institutional changes regarding marriage form the particular historical context in which this dissertation has to be understood.

Economic and Societal Context

Today, Nordic countries frequently score highly in terms of the various dimensions of gender equality (see for instance, Plantenga et al. 2009). In terms of dimensions such as female labour force participation and the division of non-paid work (particularly child care), the Nordic countries – and particularly Sweden – stand out and are seen as forerunners in the general trend of increasing gender equality, or “gender revolution” (Goldscheider et al. 2015). This position was mainly earned during the second half of the twentieth century. In the first half of the twentieth century, Sweden did not stand out as a country with particularly high female labour force participation rates; from the late 19th century until the 1960s, these were comparable to those of the United States (Stanfors and Goldscheider 2017). In Scandinavia as in other countries, industrialization led to separate spheres for men and women in which men were given responsibility for work outside the home and women were given responsibility for work inside the home. The non-paid work of women continued to increase during the 1930s and 1940s in Sweden and peaked, as in other Western countries, around the 1950s and 1960s (Stanfors and Goldscheider 2017). The economic growth experienced by many

Western countries during the 1950s and 1960s led to an expansion of the industrial and service sector and an increase in the demand for labour. This economic expansion resulted in an increase in female employment. In Sweden, the generally high demand for labour was accompanied by a substantial expansion of the service sector, shorter working hours, and the increased use of electrical devices in the home which facilitated housework and freed up some of the time women had for work outside the home (Svensson 2008). Consequently, female labour force participation increased dramatically during the 1960s and 1970s in Sweden. As is displayed in Figure 3, female labour force participation in Sweden was higher than in the United States at the beginning of the period, and Sweden achieved female labour force participation rates of more than 80 percent earlier than the U.S., Denmark, and the countries in the European Union. The 1990s brought a change in the trend in increasing female labour force participation, which is largely due to a decline in general labour force participation as a consequence of the 1990s economic crisis. Since male labour force participation rates also fell around that time, female labour force participation relative to men's was nevertheless stable during the 1990s (Stanfors 2014).



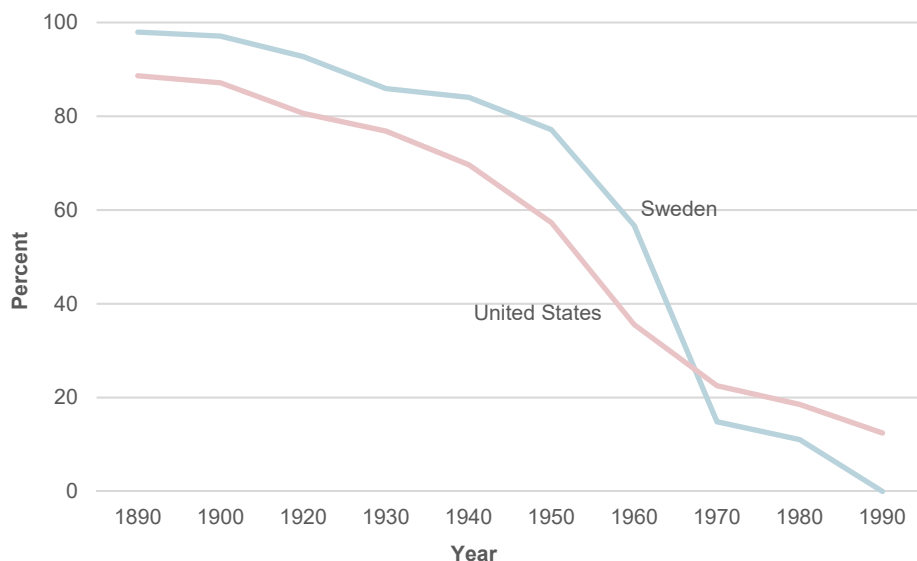
Source: OECD 2017c

Note: Labour force participation rates in percent for the working age population (aged 15 to 64). Denmark data refers to the months of February to June up to 2001 and to annual averages as of 2002. Sweden data refers to the population aged 16 to 64 up to 2009; from April 2005 persons registered in population records but employed abroad are included in the labour force. United States data refers to the civilian resident non-institutional population aged 16 years and over living in private households and collective households.

Figure 3 Female labour force participation rates for selected countries and the European Union average, 1963-2014

Since the mid-1990s Denmark and Sweden have had similar female labour force participation rates of about 77 percent, which is considerably higher than the average female labour force participation rate in the European Union and the United States.

More important than the overall labour force participation of women is the labour force participation of married women for understanding the encompassing changes in gender roles. In Sweden, married women typically left the labour force upon marriage or the birth of the first child, which changed gradually during the first half of the twentieth century and more rapidly thereafter (Figure 4). Towards the end of the twentieth century, leaving the labour force upon marriage was rather uncommon and vanished entirely by 1990, when marital status was no longer associated with labour force participation (Stanfors and Goldscheider 2017).



Source: Stanfors and Goldscheider 2017

Note: For Sweden, the years 1890–1960 refer to women older than 15; the years 1970–1990 refer to women above 16 years. In 1990 the category ‘married women’ is expanded to include cohabiting women. The United States figures for 1890–1960 refer to women older than 15, while the years 1970–1990 refer to women above 16 years. The proportions are calculated by dividing single female labour force participation rates by the difference between marital and single female labour force participation rates (assuming these rates refer to women’s life courses, see Stanfors and Goldscheider 2017 footnote 23).

Figure 4 Estimated proportion of women leaving the labour force upon marriage in Sweden and the United States, 1890–1990

Labour force participation rates do not, however necessarily correspond to women’s involvement in paid work. The strong increase in (married) women’s labour force participation was not matched by an equally strong increase in hours worked. The generous parental leave schemes in the Swedish welfare model as well as the high tendency of Swedish women to work part-time led to smaller increases in the hours worked (and even a decrease in the average hours worked by women). After the 1980s, however, the average hours worked by women increased again (Stanfors 2014). Thus,

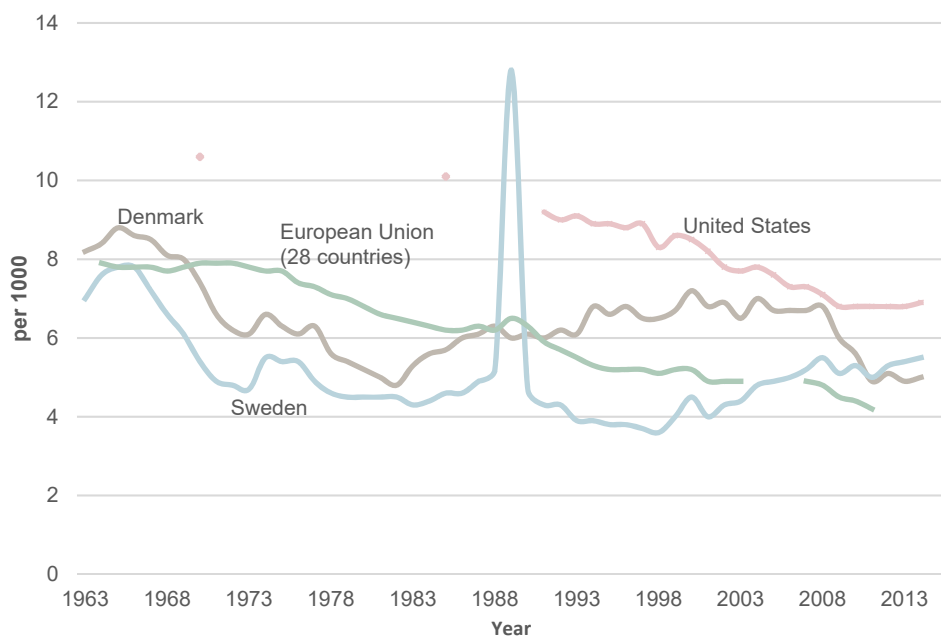
the period between the 1960s and the 1990s can be characterized as one in which the labour force participation of single and married women rose substantially and the gap between women's and men's labour force participation rates narrowed. It was, however, also the time when part-time work and long leaves of absence were common for mothers. That said, the period under study, 1990 to 2009, is characterized by an increase in women's hours worked (Neilson 2016) and an increase too in the at-work rate⁷ for women (Stanfors 2014). The division of labour between men and women, and particularly between mothers and fathers, became more equal in this period as Swedish mothers reduced their paid work hours to a lesser extent while Swedish fathers reduced their paid work hours and increased their household contribution (Bernhardt et al. 2008; Neilson and Stanfors 2013).

The Changing Institution of Marriage

The increase in married women's labour force participation together with a (slightly delayed) increase in men's share of domestic work clearly challenge the idea of separated spheres (Stanfors and Goldscheider 2017) and indicate a change in the institutions of marriage and family (Popenoe 1987). Furthermore, over the same period in which female labour force participation increased, marriage rates were on the decline. This decline occurred earlier in Sweden and Denmark than in the rest of Europe and the United States (Figure 5), and the general trend continued until the early 1980s.

In Sweden, the decline was particularly pronounced. Between 1966 and 1973, the marriage rate dropped from 7.8 to 4.7 (per 1000 inhabitants). With few exceptions (mainly in 1989), the negative trend continued until 1998. The general decrease in marriages in Sweden was mainly related to a decreased number of marriages among the (childless) never-married and only to a lesser extent to a decrease in second or higher-order marriages. The decline in marriages coincided with an increased prevalence of non-marital cohabitation among Swedish couples (Andersson 1998). Although non-marital cohabitation has old roots in Sweden, it was not very common during the decades before the 1960s. During the late 1960s and the 1970s, young Swedes went on to start living with their partners at an increasingly younger age, and chose to live in a consensual union instead of marriage. While the first cohorts of cohabitants decided to marry soon after a period of pre-marital cohabitation, for subsequent cohorts these unions stayed non-marital for longer periods of time (Hoem 1995).

⁷ The at-work rate refers to people actually performing market work during an average week in the year as a percentage of the population in the group in question; Stanfors 2014.



Source: Eurostat 2017b; OECD 2017a

Note: Number of marriages during the year per 1000 people. Data for the European Union retrieved from Eurostat; data for Denmark, Sweden and the United States retrieved from the OECD Family Database.

Figure 5 Crude marriage rates for selected countries and the European Union average, 1960-2015

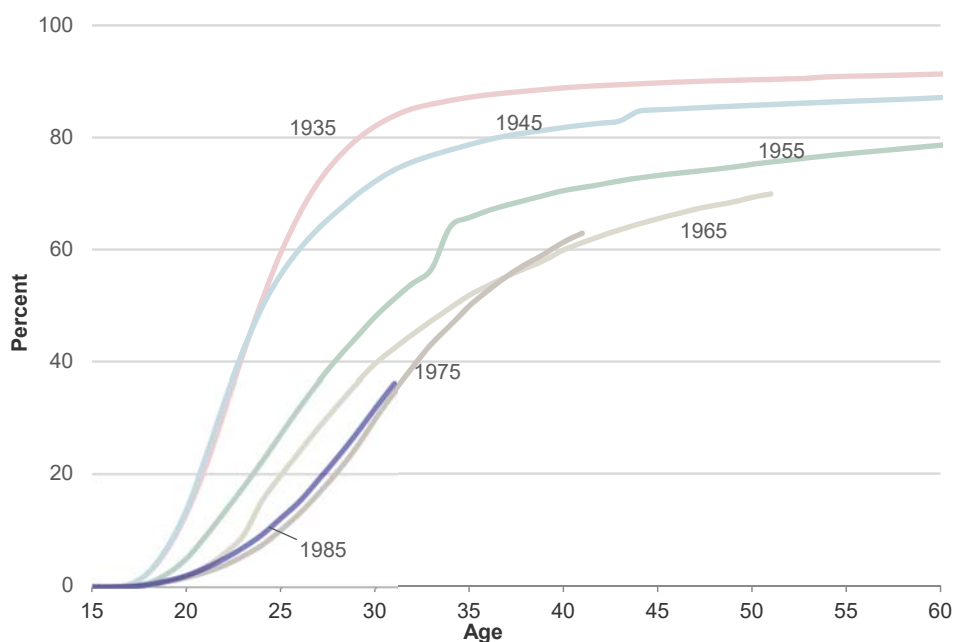
In Scandinavia, non-marital cohabitation has emerged earlier and is far more common than in other parts of Europe (particularly Southern Europe; Kiernan 2004). The decrease in marriage and increase in non-marital cohabitation in Sweden occurred in close relation with increasing female labour force participation rates and improving educational attainment. Not only changes over time but also country differences in marriage rates are associated with female labour force participation rates (Kalmijn 2007). It is, however, unclear if the liberal view on cohabitation in Sweden can be seen as a direct result of women's labour force participation or if the increasing prevalence of cohabitations is related to a broader social and attitudinal change. In Sweden, the choice between formal marriage and informal cohabitation has long been viewed a private matter, and today every second child is born out of wedlock which is also true for two-thirds of all first births. The vast majority of these children are born to cohabiting parents (Hoem 1995), which shows that non-marital cohabitation is perceived as an institution rather than deviant behaviour. Nonetheless, more than eighty percent of these children experience the marriage of their parents (Holland 2013). According to Andersson (1998), the sharp decrease in the propensity to marry and the increase in non-marital cohabitation "can be interpreted as evidence of a general decrease in the popularity of marriage as the sole institution for family life" (Andersson

1998, 165). This development was promoted by family policy in the Scandinavian countries, which meant increasingly equal rights and regulations for cohabitation and marriage (Duvander 1999; Hamplova 2009). Despite the increasing prevalence of non-marital cohabitations being accompanied by the higher educational attainment and higher labour force participation of women over time, a cross-section of the relationship between educational attainment and marriage shows the opposite: Unions among the highly educated are more frequently translated into marriage than those among individuals with a lower education (Bracher and Santow 1998; Duvander 1999; Wiik et al. 2010) and marriages of the highly educated are more closely tied to a first birth (Holland 2013).

Particularly striking in Sweden's changing marriage rates is the year 1989, in which the number of marriages almost trebled. The direct cause of this extreme increase was the transitional provisions included in a widow's pension reform that came into place in January 1990. However, the marriage peak in 1989 cannot be entirely explained by a sudden economic reasoning of couples, but rather shows "how lightly Swedes in general have taken the choice between cohabitation and marriage" (Hoem 1991, 132). This particular example, but also the fact that the majority of Swedes still marry at some point in life as displayed in Figure 6, shows that the institution of marriage has not become unpopular.

Figure 6 displays proportions of ever-married across several birth cohorts in Sweden. While there has been a decline in the propensity to marry at least once across the birth cohorts 1935 to 1965, this decline has not continued for later cohorts (despite a continuing trend of postponement). Moreover, the general trend in Sweden's marriage rates shows a slight increase in marriage after 1998 (see Figure 5) which cannot easily be explained by compositional factors and may thus indicate a reversal in marriage trends (Ohlsson-Wijk 2011).

This brief overview shows that the long-established institution of marriage has undergone profound changes in Sweden in the past decades. The popularity of marriage as the sole institution of family life has decreased and cohabitation has emerged as a precursor to marriage and a legitimate alternative to it. Rather than just being a general rejection of marriage as an institution, new patterns (and new orders) of family formation (and the events cohabitation, childbirth, and marriage) have emerged (Andersson 1998; Duvander 1999). Contemporary marriage is thus optional and more egalitarian than in the past (Stanfors and Goldscheider 2017).



Source: Statistics Sweden 2014a; Statistics Sweden 2018

Note: Percent ever-married by a certain age for the different cohorts is calculated based on the percent of women of a certain age who were never-married by the end of a specific year. The bulges in the lines are due to the 1989 marriage boom.

Figure 6 Population ever-married by birth cohort and age in Sweden, 1968-2016

Changes in Marital Homogamy

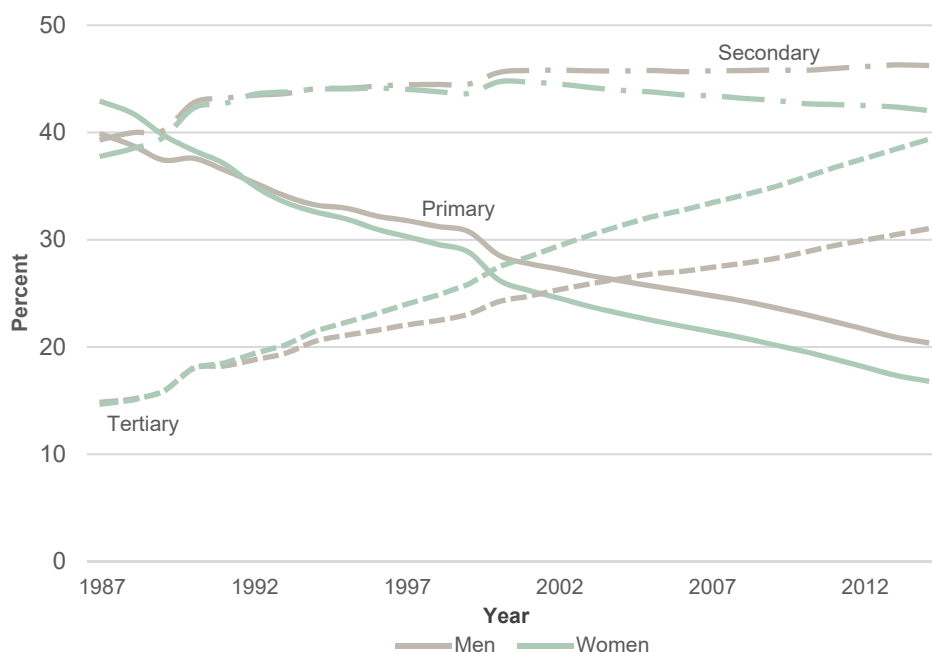
The described changes in the characteristics of marriage have also been associated with changes in assortative mating patterns. Changes in assortative mating on age and education inform us about the respective roles of partners in a relationship, which is often related to a varying degree of hierarchy between partners in a relationship.

Educational Homogamy

It has been assumed that as marriages become more gender-equal institutions assortative mating on education (i.e., educational homogamy) would increase (Schwartz 2013). With increasing gender equality, men's and women's preferences are thought to become more equal; thus, men may develop preferences for highly educated and high-earning women. This change in preferences then leads to increased competition for high-status partners and increased homogamy (Schwartz 2013). Education is, however, not only an economic but also a cultural resource that is related to attitudes, values and behaviour. Educational homogamy can also result from preferences for cultural similarity (Kalmijn 1998). Whether homogamy preferences can

be realized is, however, largely dependent on the distribution of education in the population. Consequently, patterns of educational assortative mating are closely related to the educational expansion among women (Schwartz and Mare 2005). However, women's educational attainment did not only align with those of men but indeed continued to rise. As the female educational advantage in a society increases, marriage markets tend to respond. Thus, the traditional pattern of female hypergamy is tipping in favour of emerging patterns of female educational hypogamy in many different contexts around the world (Esteve et al. 2016). While highly educated women react to the reversed gender gap in education by partnering down, low-educated men tend to stay single more often (Hauw et al. 2017).

Figure 7 displays the educational expansion for the total population of Sweden over the period 1985 to 2016. At the beginning of this period, primary education (which here includes lower secondary education) was still the most common level of educational attainment among the population. In the three decades thereafter, those members of the population who had only had a primary education decreased while those with an (upper) secondary and in particular a tertiary (post-secondary) education increased considerably. Regarding primary education, the cross-over in trends among men and women is apparent: before 1991, relatively more women than men only had a primary education whereas this reversed from 1991 onwards. During the same period women caught up with men for the first time with regard to a secondary education, but as of the late 1990s the relative number of men with a secondary education is again higher. Clearly, women have overtaken men with regard to tertiary education. While these shares were equal until the early 1990s, women displayed a steeper increase than men in the later period. By 2014, as many women had a tertiary as a secondary education.



Source: Statistics Sweden 2017c

Note: The data refers to the total population aged 16 to 74. The classification by level of educational attainment is according to the Swedish national educational classification (SUN). Primary education refers to primary and secondary education up to 10 years; secondary education refers to upper secondary education (of two/three years); tertiary education refers to all post-secondary education. For the 2000 version, the Swedish Register of Education underwent extensive quality improvements which led to a break in the time series, so comparison over time must be regarded with caution. Educational data might be incomplete for a small number of persons.

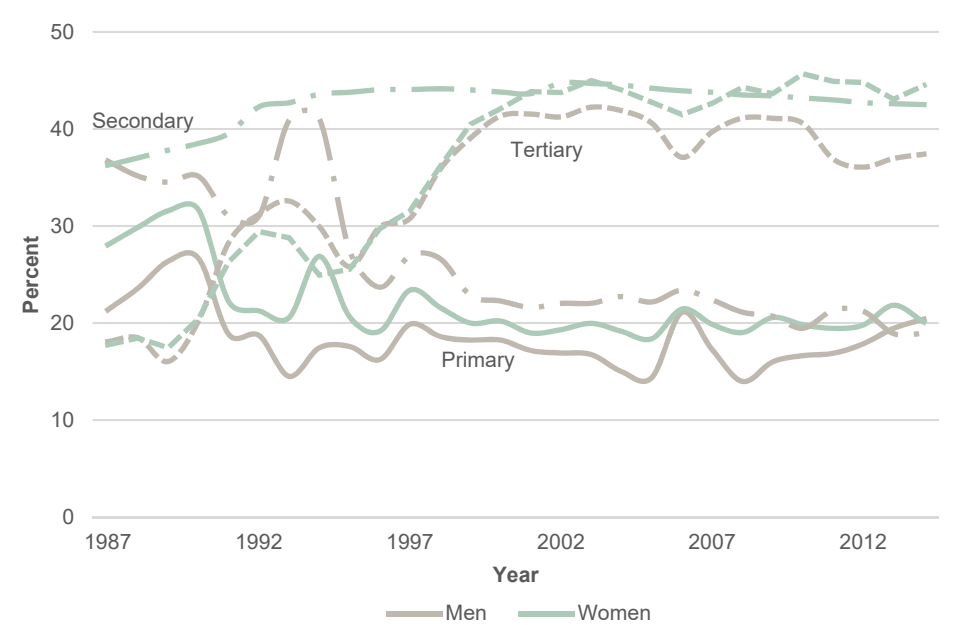
Figure 7 Changes in highest levels of education for men and women in Sweden, 1987-2014

It comes of little surprise that these changes in the educational composition of the population have consequences for patterns of educational assortative mating across birth cohorts.⁸ Educational homogamy was more common for individuals born prior to World War II than for those born later, which can be explained by the fact that the majority of men and women in these cohorts had only had compulsory schooling. For men in these cohorts, marrying a woman with lower education was still more common than marrying a woman with higher education, but this changed for subsequent cohorts as there were more women than men with higher education (Henz and Jonsson 2003). For men with a post-secondary education who were born in the 1940s and 1950s, unions with lower educated women (female educational hypergamy) were still the most common, but educational expansion for women led to a strong increase in educationally homogamous unions for the higher educated men born in the 1960s and

⁸ Findings on educational homogamy over time depend partly on which data sources were used and how homogamy was defined (i.e., how many educational categories were taken into account). Broad trends should, however, be robust to these definitions.

1970s. Thus, for women born in the 1960s and 1970s who had post-secondary education, unions with lower educated men (hypogamous unions) were distinctly more common than educationally homogamous unions (Chudnovskaya 2016).

Also, when analysing trends in educational homogamy net of compositional changes, there was a decrease in educational homogamy between birth cohorts 1915-1929 and 1945-1959. This trend was, however, broken for later cohorts (Henz and Jonsson 2003). In international comparison, educational homogamy appears to be rather low in Sweden (Smits et al. 1998) and, in contrast to other countries in which non-marital cohabitation is less institutionalized, marriage and cohabitation do not differ with respect to educational assortative mating patterns (Hamplova 2009).



Source: Statistics Sweden 2017a

Note: The data refers to foreign-born immigrants aged 16 to 74 in the immigration years 1987-2014. The classification by level of educational attainment is according to the Swedish national educational classification (SUN). Primary education refers to primary and secondary education up to 10 years; secondary education refers to upper secondary education (of two/three years); tertiary education refers to all post-secondary education. For the 2000 version, the Swedish Register of Education underwent extensive quality improvements which led to a break in the time series, so comparison over time must be regarded with caution. Educational data for immigrants in the year of immigration is incomplete; up to 30 percent lack any information on educational attainment. The displayed numbers should therefore be treated with caution.

Figure 8 Immigrant men and women in Sweden by level of education, 1987-2014

The educational composition of immigrants by year of immigration is displayed in Figure 8.⁹ While immigrants with secondary and primary education are dominant in the earlier cohorts, a large fraction of immigrants migrating around year 2000 or later have tertiary education. The share of immigrant women with secondary education is relatively stable across the period but the share of immigrant men with secondary education has been declining. In an analysis of assortative mating patterns in the population with an immigrant background in Sweden (first and second-generation immigrants), Çelikaksoy (2010) finds that about 45 percent are in educationally homogamous unions. The probability of being in an educationally homogamous union is larger for second-generation immigrants than for first-generation immigrants. However, educational homogamy is particularly common among Nordic and other European immigrants and less common among non-European immigrants.

Age Homogamy

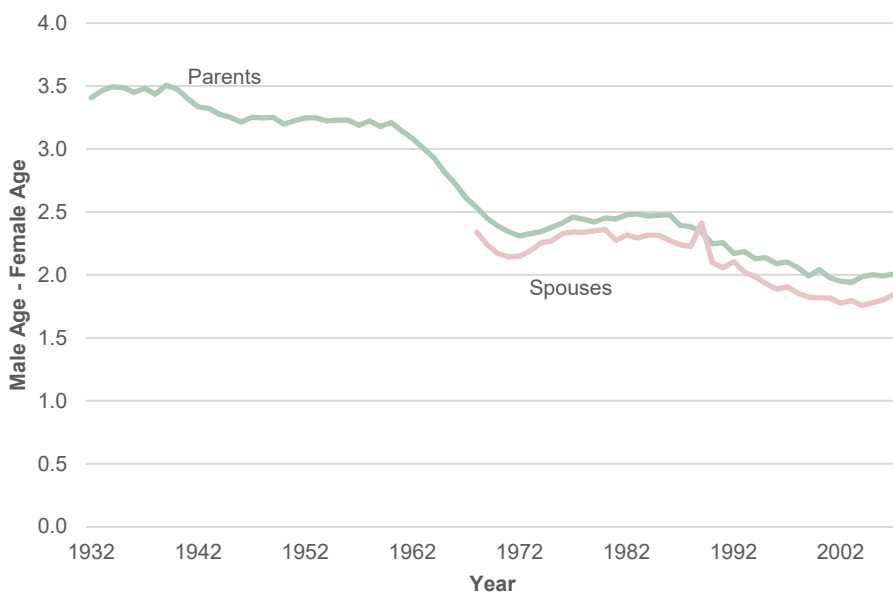
Age homogamy is a different measure of marital homogamy, because it is less dependent on compositional factors other than educational homogamy. Changes in cohort size and male-to-female sex ratios can, however, influence the age difference between husband and wife over time (Ní Bhrolcháin 1992; Ní Bhrolcháin 2001). A temporary shortage of partners in the age range usually preferred as the result, say, of a baby boom or the detrimental impact of war can lead to either a larger fraction of a cohort remaining unmarried or the relaxation of age preferences, which in turn results in a temporary change in marital age differences. Because these *marriage squeezes*¹⁰ are temporary phenomena, they cannot explain long-term changes in age differences between spouses (van Poppel et al. 2001). Instead, marital age differences and patterns of female age hypergamy – younger women marrying older men – have been related to instrumental considerations about marriage (Shorter 1975) and the patriarchal organization of society (Casterline et al. 1986; Van de Putte et al. 2009). In line with this interpretation of increasing equity between partners is the general decline in age heterogamy and an increase in age homogamy over the course of the twentieth century

⁹ Due to the great lack of information on immigrant education in the registers, this figure should be treated with caution. Immigrant education is only registered if level of education was reported in the census of 1970 or 1990, or if a degree was obtained in Sweden, or if the immigrant's education was formally recognised by the Swedish Council for Higher Education (Högskoleverket, from 2000). Statistics Sweden attempts to supplement the lack of information from surveys on newly arrived immigrants' education (1995 and on an annual basis from 1999 onwards; Statistics Sweden 2005), but a large fraction of adult immigrants lack information on educational attainment in the year of immigration. In my study, I therefore replace missing information with the individual's own educational records from later years (for a more detailed description, see Paper I).

¹⁰ The key idea of a marriage squeeze is that age gap preferences are fixed. Temporary changes in cohort sizes then lead to an excess supply of men when birth numbers decline (as fewer women are born two to three years later, if that is the preferred age gap) and an excess supply of women when birth numbers increase. For an overview, see Ní Bhrolcháin 2001.

in many Western societies (Atkinson and Glass 1985; Esteve et al. 2009; Van de Putte et al. 2009; van Poppel et al. 2001).

Age heterogamy; i.e., the absolute age difference between spouses, declined moderately around the turn of the twentieth century in Sweden as a result of the decline in age-hypogamous and age-hypergamous unions. Unions in which the husband was 0 to 3 years older than the wife increased accordingly. Even though this general trend is in accordance with the idea that modernization led to an increase in age homogamy, socio-economic and spatial differences in age homogamy are not entirely consistent with explanations of cultural change and modernization (Dribe and Stanfors 2017). From the 1930s until the 1970s, there was a further decline in age heterogamy and age hypergamy (Kolk 2015; see Figure 9).



Source: Kolk 2015

Note: Data sources are Swedish civil birth registries (1932-2007) and Swedish marriage registries (1968-2007). Only unions with two Swedish-born partners are included, and are limited to first marriages/parents of a first common child. Information on births before 1960 is conditioned on the parents being alive and resident in Sweden in the 1960s.

Figure 9 Mean age hypergamy for Swedish-born parents and spouses, 1932-2007

The overall decline in female hypergamy in the period was from an average age distance of 3.5 years in 1930 to that of about two years in 2007. While the man was on average more than three years older than the woman until 1960, the age distance declined rapidly in the decade thereafter and reached a temporary minimum in 1970. Marital unions, which are observed from 1968 onwards, were characterized by lower mean age differences than childbearing unions throughout the period. Hypergamy increased in both types of unions in the 1970s, but declined further thereafter. Overall, age

hypergamy in marital unions is very similar to that of childbearing unions. While age hypergamy continued to decrease, age heterogamy began to increase after the 1970s. The moderate decrease in mean age hypergamy that is observed for the last decades of the twentieth century was partly a result of an increasing prevalence of unions between an older woman and a younger man, which might signal a decline in the importance of age norms and increasingly diverse union formation patterns (Kolk 2015). Among newly married couples in Sweden in the late 2000s, small age differences (of up to three years) are most common among the highly educated, high-income earners, and native Swedes. Those with low education, low income, and a non-Swedish origin are more often in marriages with large age differences, particularly men-older marriages (Gustafson and Fransson 2015). Observed patterns of age homogamy reflect societal changes but are not a direct measure of changes in age preferences. More direct tests on age distance preferences come from online dating data. Studies based on this type of data consistently show that men frequently state a preference for somewhat younger partners (although these studies are not on Sweden; Alterovitz and Mendelsohn 2011; Hitsch et al. 2010; Rudder 2014; Skopek et al. 2011).

Immigration History

Despite many similarities, Sweden and Denmark differ somewhat regarding immigration patterns and migrant populations. Sweden has a larger total number of immigrants (Pettersen and Østby 2013) and a larger immigrant share of the population (today about 17 percent of the population are foreign-born), which is above the foreign-born share of other more traditional immigration countries like the United States. Denmark has considerably fewer immigrants (with a foreign-born share of just below 10 percent), which is lower than in many other West-European countries (OECD 2017b). The composition of the immigrant population with regard to region of origin is relatively similar in Sweden and Denmark. In both countries (in 2012) about half of the immigrant population originates from countries in Asia, Africa and Latin America. The share of EU immigrants is larger in Denmark than Sweden which has a higher share of Nordic immigrants (particularly Finnish immigrants). In Sweden, about 20 percent of immigrants come from other Nordic countries, while this is only about 10 percent in Denmark (Pettersen and Østby 2013).

With regard to individual countries there is greater variation. Denmark has relatively large numbers of labour migrants from Turkey and Pakistan. Even though the absolute number of Turkish and Pakistani immigrants in Sweden is comparable to that of Denmark, Turkish migrants to Sweden are more likely to be refugees, while Pakistani immigration to Sweden is a more recent phenomenon and many of these immigrants are male students (Pettersen and Østby 2013).

Table 1 Immigrants in Sweden and Denmark by country of origin, 2012

	Sweden	Denmark
Turkey	43,909	32,379
Poland	72,865	28,043
Iraq	125,499	21,197
Somalia	40,165	9,951
Bosnia-Herzegovina	56,290	17,580
Pakistan	10,539	12,079
Vietnam	15,175	9,024

Source: Pettersen and Østby 2013

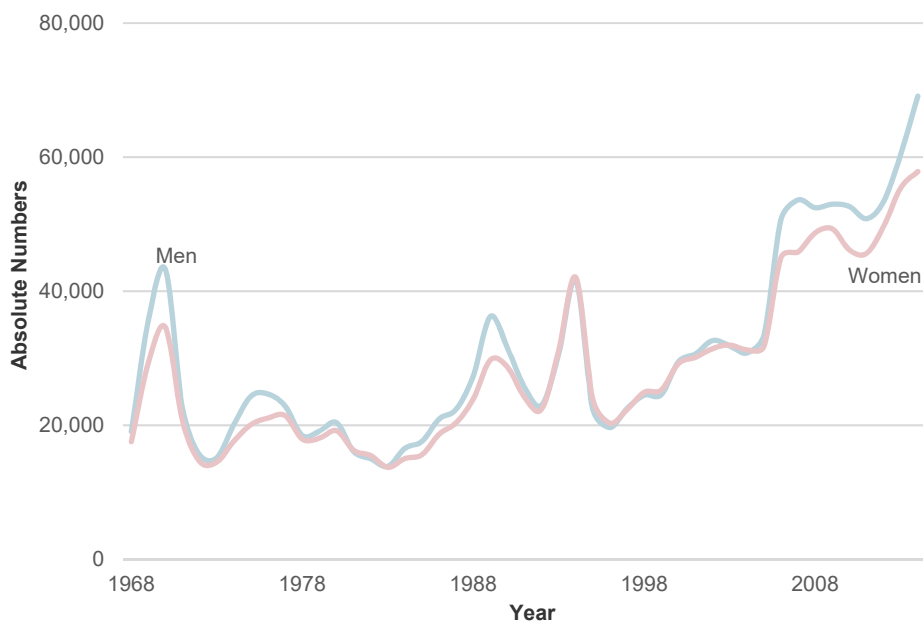
Note: The numbers refer to the population on 1 January, 2012. For Denmark, the numbers relate to persons who were born outside Denmark to two foreign-born parents. For Sweden, the numbers relate to all foreign-born persons.

Until recently, Sweden was generally distinguished by having a more liberal refugee policy than Denmark. Sweden had, for example, a larger inflow of refugees from Iraq and Bosnia-Herzegovina than Denmark.

Sweden's migration history since World War II

Sweden has been an immigration country since the beginning of the 1930s, when immigration exceeded emigration (Lundh and Ohlsson 1999). During the 1940s, larger waves of refugees from neighbouring Nordic countries and Baltic countries as well as from Germany and Poland came to Sweden.¹¹ While the total majority of immigrants were men, the majority of immigrants in the period just after World War II were women. One of the reasons for the dominance of women in this period among immigrants from Finland, Norway and Germany was the great demand for domestic servants (Statistics Sweden 2016).

¹¹ A large number of these persons returned to their origin countries after the end of the war and never registered in Sweden, and are therefore not listed in official statistics.



Source: Statistics Sweden 1997; Statistics Sweden 2017b

Note: The figures include persons transferred from the register of people of unknown residence; i.e. persons who were registered for at least two years under the heading Residence unknown

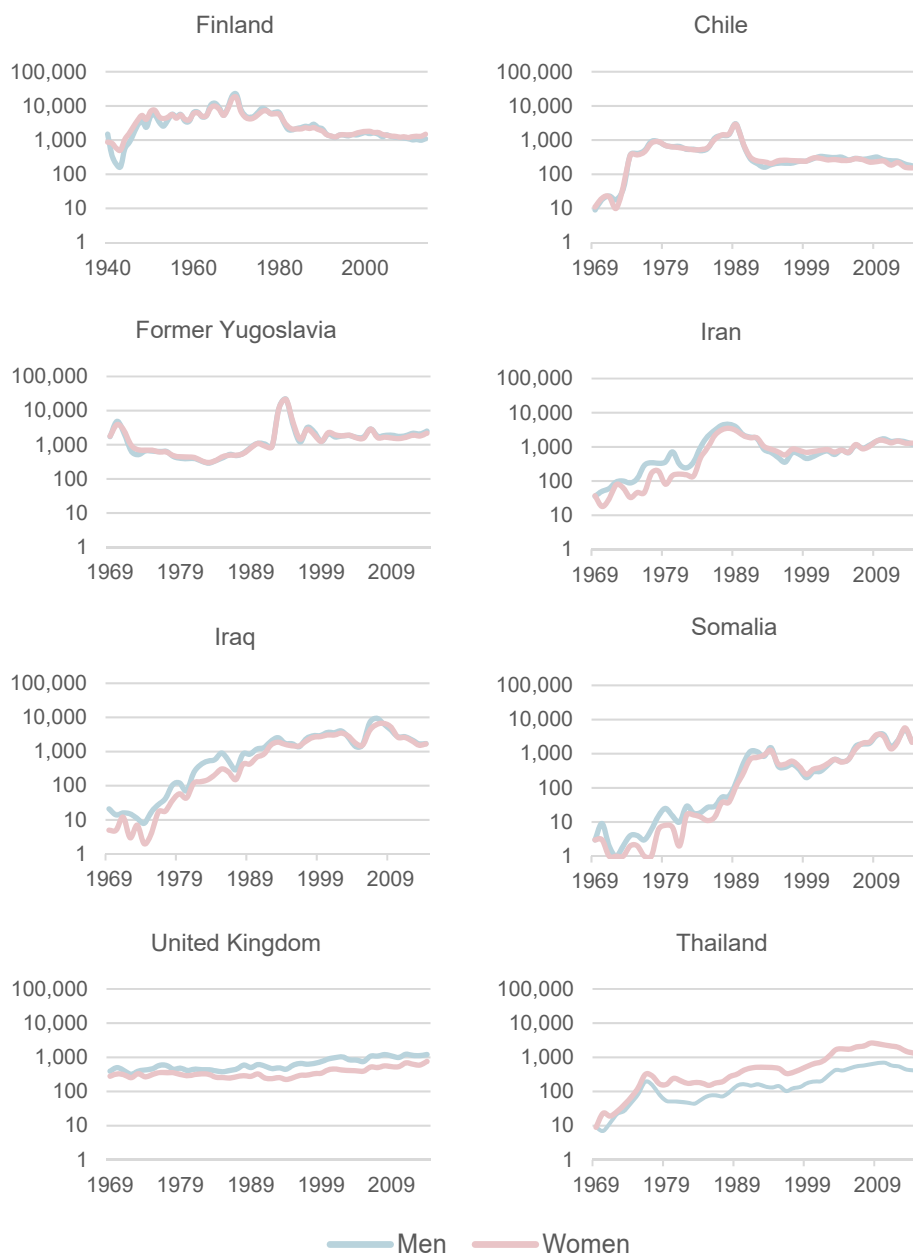
Figure 10 Number of immigrants to Sweden, 1969-2014, by sex

The economic growth experienced by many Western societies encouraged workers to migrate to the industrial centres (both internally and internationally). Thus, the post-war period until the early 1970s largely comprised labour migration. The immigration flows during the 1950s and 1960s consisted mainly of Nordic and especially Finnish immigrants, who had been able to move freely within the common Nordic labour market since 1954. For other immigrant groups too, this period was characterized by liberal migration policies. Labour migrants could freely move to Sweden and were granted residence permits when successfully employed. The labour migrants during this period came mainly from Germany, Austria and Italy, and during the 1960s they also came from Yugoslavia and Greece (Lundh and Ohlsson 1999). Many industrialized economies experienced similar inflows of labour migrants during this period. Compared to other countries, the onset of Sweden's labour migration was particularly early because post-war economic growth occurred sooner in Sweden, which as a neutral country was spared the destruction of war.

Out of the half a million immigrants who migrated to Sweden in the period 1955 to 1969, the majority were men (Statistics Sweden 2016). The period of free labour migration for non-Nordic citizens was more or less ended by a parliament decision in 1968. Together with a declining demand for labour due to a slow-down in economic growth, labour migration from non-Nordic countries ceased in the early 1970s and,

due to equalizing standards of living between the Nordic countries, this migration also declined. The next phase of Swedish migration history was instead characterized by family and refugee migration (Lundh and Ohlsson 1999).

Since the early 1970s, the largest immigrant groups were family reunion migrants (mainly to earlier migrant cohorts) and refugees. Immigration was at relatively low levels between the early 1970s and the mid-1980s and was dominated by men. Immigration began to increase more noticeably in the 1980s, and the sex composition until the mid-2000s was approximately equal (Statistics Sweden 2016). Since the turn of the millennium immigration has increased, and immigrants from a variety of origins have migrated to Sweden for different reasons. As well as refugee migration and family reunion migration to earlier migrant cohorts, labour migrants came from India, China and Turkey. Also, migration from the new EU member states has increased since the mid-2000s, and in the most recent years the increase in refugee migration from Syria has been dramatic. The diversity of reasons for migration to Sweden also explains the higher levels of immigration in the last decade (Statistics Sweden 2015b).



Source: Statistics Sweden 2016

Note: The data is plotted on a log scale. It originates from the historical population register and does not match entirely with official statistics. Data on Finland refers to immigrants from Finland before 1969 and immigrants born in Finland from 1969 onwards. Immigrants from the countries of the former Yugoslavia are placed in one group; i.e. those from Yugoslavia, Bosnia-Herzegovina, Croatia, Kosovo, Macedonia, Montenegro, Serbia, Serbia and Montenegro and Slovenia.

Figure 11 Immigrants to Sweden 1969–2014, by sex and country of birth

Figure 11 shows the (gross) immigration patterns for some of the major immigrant groups. Sweden and Finland have always had migration flows between the two countries, and still today Finland is the largest country of origin in the total immigrant population. While migration in the 1950s was dominated by single women, later migration flows were comprised of more men and, later still, families (Statistics Sweden 2016). Chileans were among the first non-European refugees to Sweden. The first (and comparatively smaller) immigration wave took place after the military coup in 1973, and the second wave was during the second half of the 1980s (Lundh and Ohlsson 1999). Immigrants from the former Yugoslavia cannot be distinguished to any large extent by country in the official statistics (Statistics Sweden 2016). After the arrival of labour migrants during the 1960s, immigration from Yugoslavia was very low until the beginning of the 1990s, when many (mainly Bosnian) refugees and family members migrated to Sweden as a consequence of the Bosnian war (Lundh and Ohlsson 1999). About half of these migrants were married on arrival, and just as many men as women migrated from Yugoslavia to Sweden (Statistics Sweden 2016).

During the 1980s and early 1990s, many refugees from Iran and Iraq immigrated as political refugees and as a consequence of the Iran-Iraq War. Among the Iranian immigrants were more men than women until 1991 but more women than men in the decade thereafter, as well as many children. The number of Iranian immigrants decreased substantially in the early 1990s, but since 2000 the number of Iranian immigrants has increased again, among them family reunion migrants, refugees and (fewer) labour migrants and students. Immigration from Iraq continued as a consequence of the Iraq-Kuwait War and the Iraq War, but decreased after 2007. More men than women have immigrated, and Iraq is the most common country of birth for foreign-born men. Among the earlier cohorts were many single men, but in the 2000s more married men and women and children came (Statistics Sweden 2016). A first (comparatively small) wave of Somali refugees came during the 1990s, and increasing numbers of men and women in equal measure have immigrated to Sweden since 2000 (Statistics Sweden 2016).¹²

¹² The brief disruption of the migration flow between 2010 and 2012 is due to legal changes in Sweden concerning identity requirements.

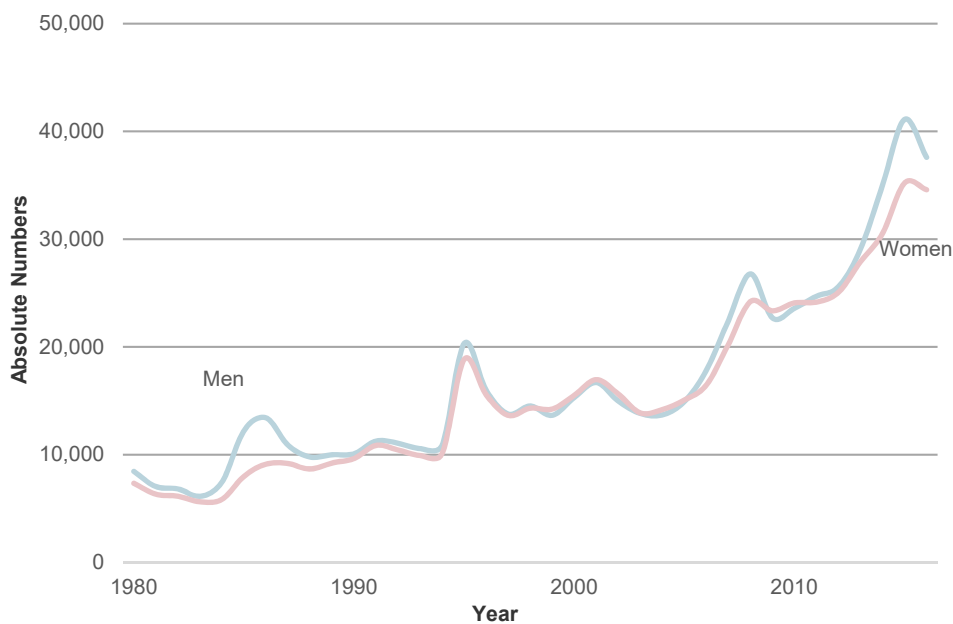
Two immigrant groups displayed in Figure 11, the United Kingdom and Thailand, are distinct from the other groups due to their particular sex-composition patterns and reasons for migration. The total number of immigrants from the United Kingdom to Sweden has not been particularly high but has increased since Sweden became a member of the EU. The UK is, however, one of the countries with the most male-dominated immigration since two-thirds of all immigrants are men. Immigrant men from the UK migrate both as singles and married, many of these being married to women of other nationalities such as Swedish women (Statistics Sweden 2016). Among immigrants from Thailand the sex composition is the reverse. Here, many more women than men have immigrated. Apart from children (of whom a small fraction are adopted), almost all the immigrants are women of which 80 percent are family reunion migrants. Migration from Thailand peaked in 2008 and has decreased thereafter.

A different type of migration which is, however, quite substantial in size, is adoption (Lundh and Ohlsson 1999). Until the end of 2010, more than 50,000 foreign-born children were adopted to Sweden (Statistics Sweden 2010a). Foreign adoptions increased after the mid-1960s and peaked during the 1970s and 1980s, but decreased moderately in the second half of the 1980s and then further still in the past decade (Statistics Sweden 2014b). The Scandinavian countries have the highest proportion of foreign adoptees relative to the total population of all countries, and even in total numbers Sweden has received the second largest number of foreign adoptees (after the US; Hübinette 2007). In total, more girls than boys were adopted (Statistics Sweden 2010a) which is particularly distinct in the case of South Korean adoptees, who were adopted during the 1960s and 1970s and involved about twice as many girls as boys (Hübinette 2007). After South Korea, which was the most common country of origin for foreign adoptees in the 1960s and 1970s, India was the largest country of origin during the 1980s and Colombia during the 1990s (Statistics Sweden 2010a).

Denmark's migration history since World War II

Denmark's migration history since World War II is – in broad terms – comparable to that of Sweden (Figure 12). In contrast to Sweden, however, the post-war period was characterized by the emigration of the native population. As with other industrialized countries, Denmark experienced strong economic growth from the late 1950s to the early 1970s, accompanied by a high demand for labour. Guest workers, predominantly from Turkey, Pakistan, and Yugoslavia, came to Denmark in response until this type of labour immigration came to an end at the beginning of the 1970s (Pedersen 2010; Pettersen and Østby 2013). The following period was mainly characterized by family reunion migration. In the early 1980s, Denmark liberalized rules for family reunification and expanded the opportunities for refugees to be granted asylum. Migration to Denmark in the 1980s was predominantly from non-Western countries, and included refugees from Iraq, Iran, Lebanon, and Sri Lanka. Restrictions on migration in 1985 and 1986 as well as the increased emigration of Danish citizens led to a temporary halt in net migration, but migration has increased considerably since

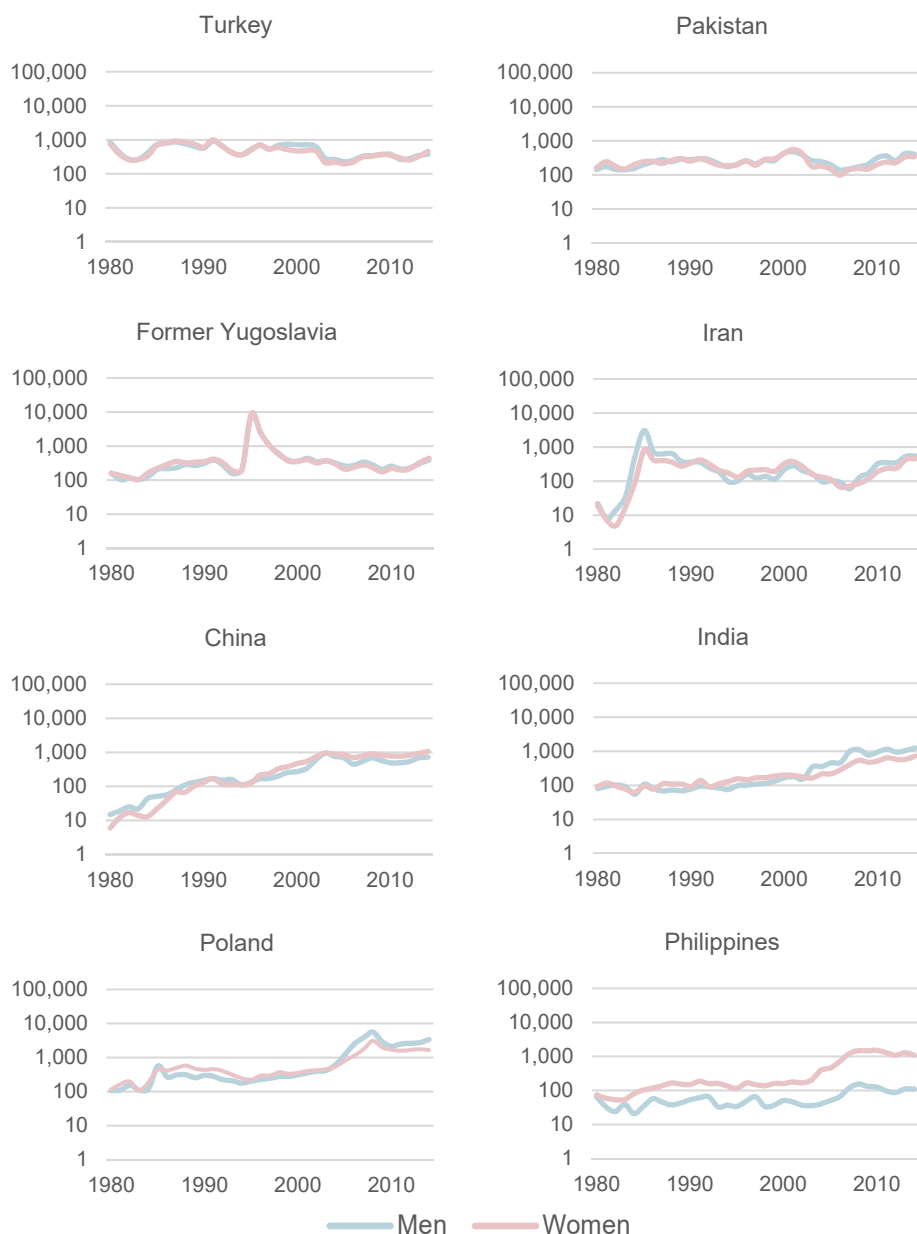
the mid-1980s (Pedersen 2010; Tranæs 2014). Large migration inflows came from countries such as those of the former Yugoslavia during the 1990s. Further changes in migration policy took place during the 2000s with restrictions on welfare benefits for immigrants and on refugee migration as well as stricter rules for family reunification, particularly marriage migration. Immigration to Denmark was thus relatively stable during the 2000s but increased after 2006 in terms of more labour migrants and students, although there were fewer family reunion migrants and refugees. Refugee migration largely ceased after 2002 and has increased only slightly in recent years (Tranæs 2014).



Source: Statistics Denmark 2017b

Note: The 11th of May 2016 the data from 2007 and onwards has been revised due to previously published data.

Figure 12 Number of immigrants to Denmark, 1980-2014, by sex



Source: Statistics Denmark 2017b

Note: The data is plotted on a log scale. Immigrants from the countries of the former Yugoslavia are placed in one group; i.e. those from Yugoslavia, Bosnia-Herzegovina, Croatia, Kosovo, Macedonia, Montenegro, Serbia, Serbia and Montenegro and Slovenia. The numbers from 2007 onwards have been revised in contrast to previously published numbers by Statistics Denmark.

Figure 13 Immigrants to Denmark 1980-2014, by sex and country of birth

Figure 13 shows the (gross) immigration patterns for some of the major immigrant groups to Denmark. Because these numbers are only available for the years 1980 onwards, labour migration during the 1960s and early 1970s when large numbers of Turkish and Pakistani immigrants came to Denmark is not shown. In the period 1980 to 2014, immigration from Turkey was on the decline and immigration from Pakistan relatively stable at low levels. Immigration from Yugoslavia to Denmark peaked in the mid-1990s, similar to immigration from Yugoslavia to Sweden. Immigration from Iran to Denmark was particularly high during the mid to late 1980s, which was the period of the Iran-Iraq wars. In this period more men than women immigrated, a pattern which changed in the 1990s when more women than men immigrated. Immigration from Iran decreased during the late 1980s and 1990s and has increased only in recent years.

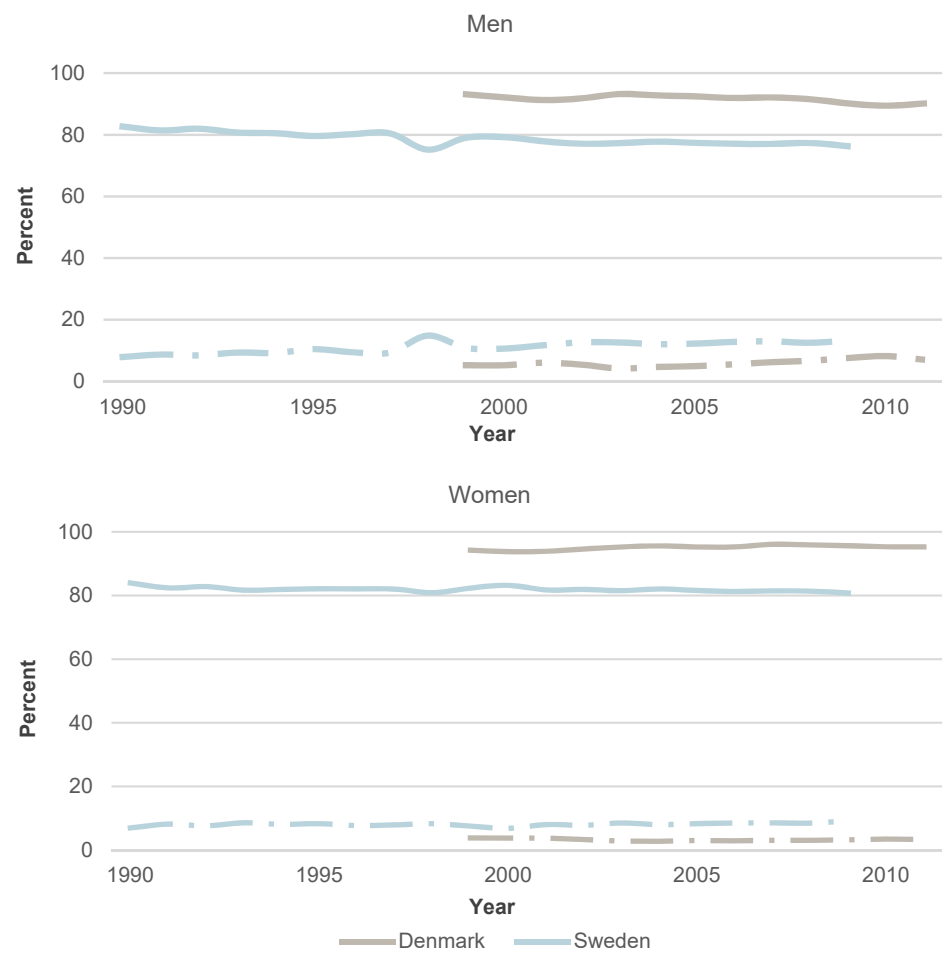
Migration from India and China increased considerably in this period. During the 2000s and 2010s, more women than men immigrated from China although more men than women came from India. Immigration from Poland also increased throughout the period, and this increase was particularly steep after 2004 when Poland joined the EU. In this period more men than women immigrated. Immigration from the Philippines to Denmark is particularly gendered. The immigration of women increased particularly during the 2000s and early 2010s, when about ten times as many women as men immigrated.

The Evolution of Intermarriage in Denmark and Sweden

Statistics on (the incidence of) immigrant-native marriages have only recently been added to the production of official marriage statistics by Eurostat, and cover relatively few countries (Eurostat 2017a). As there are no official statistics on the prevalence of intermarriages, Lanzieri (2012a) estimated that of native-immigrant intermarriages in the population of thirty European countries in the second half of the 2000s. Switzerland and Luxemburg and also Latvia and Estonia are among the countries with the highest prevalence of intermarriage, while the lowest prevalence of intermarriage is found in Romania, Bulgaria, and Poland. In 2008 to 2010, the share of intermarried couples out of all the couples was around 7 percent in Denmark and around 9 percent in Sweden. However, the official statistics as well as the estimates only report on country of birth and thus do not distinguish between natives without a migrant background and second-generation immigrants.

Figure 14 displays estimated immigrant-native intermarriages as a share of all new marriages formed by natives (without a migrant background) for the two countries under study, Sweden and Denmark. In Sweden, the share of native marriages declined continuously in the period under study, and the share of Swedish men in intermarriages increased from 8 percent in 1990 to more than 13 percent in 2009, while that of Swedish women increased from 7 percent in 1990 to 9 percent in 2009. For Denmark,

official data on intermarriages has only been available since 1999. Intermarriage rates are somewhat lower than in Sweden, and these increased from 5 percent in 1999 to 7 percent in 2011 for men, and were quite stable for women (around 3 to 4 percent).¹³

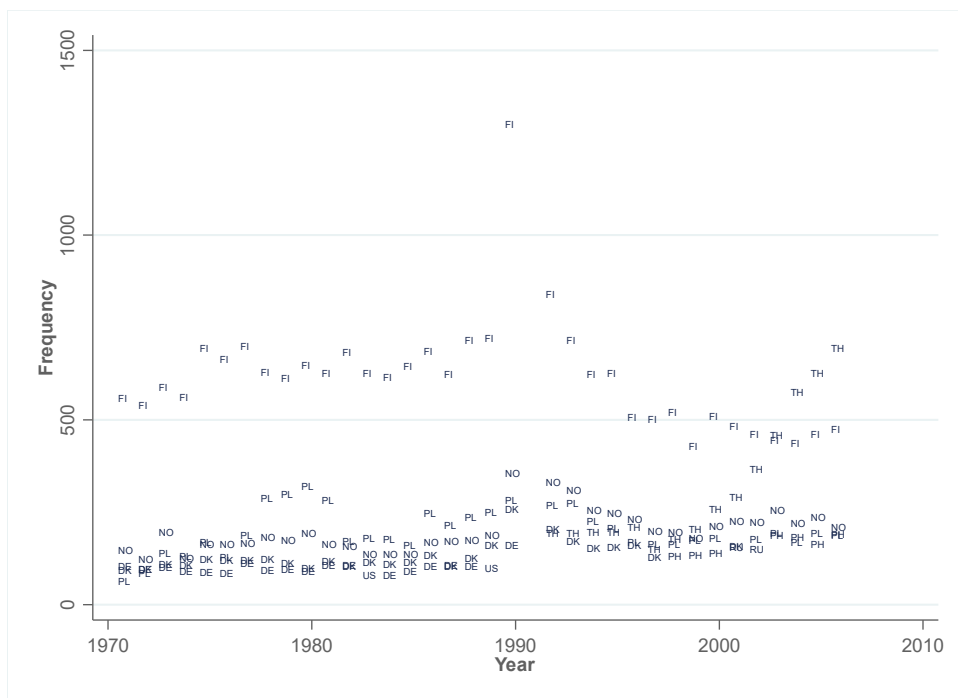


Source: Statistics Denmark 2017c; Sweden: Own calculations from register data extraction.

Note: Shares for Denmark are calculated on the basis of the total annual number of marriages of Danish men/women; the total number of marriages includes marriages with second-generation immigrants and those of unknown origin. The data for Denmark is available for the years 1999-2016; in some of the marriages the sex and age of one of the persons involved is not stated because the person was not in the Danish population register. In these cases the marriages will be defined as marriages of different sex couples. This means that the marriages of same-sex couples could be underestimated and the marriages of different sex couples overestimated. Shares for Sweden are estimations based on individual data from the Total Population Register made available for this study.

Figure 14 Share of native marriages and immigrant-native intermarriages of all marriages of native Danes and Swedes, 1990-2011, by sex

¹³ Since these figures are based on estimates on non-harmonized data, the comparison between the countries should be read with caution



Source: Own calculations from register data extraction.

Note: Data for 1990 is missing. The peak in 1989 is due to the general marriage boom in Sweden. In this data extraction, individual countries of birth cannot be identified after 2005. DE=Germany; DK=Denmark; FI=Finland; NO=Norway; PH=Philippines; PL=Poland; RU=Russian Federation; TH=Thailand; US=United States

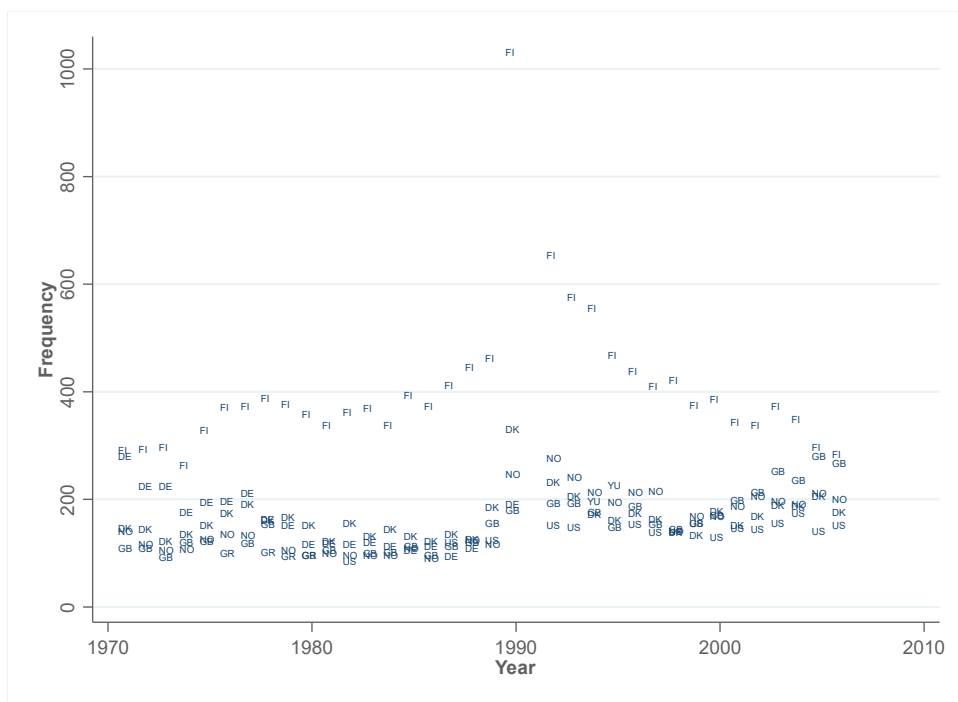
Figure 15 Top five countries of origin of foreign partners of Swedish men, newly formed relationships 1970-2005

The frequency of intermarriage is closely related to the number of immigrants in the country (Lanzieri 2012b). In Sweden intermarriages increased as the number of immigrants in the country increased, and also the origins of the immigrant partners changed with the composition of immigrants (Cretser 1999). Intermarriages between Swedes and immigrants from other Nordic countries have been particularly common but have decreased over time. Among the Nordic citizens, marriages with Finns, particularly between Swedish men and Finnish women, were common in the 1970s, and at the beginning of the 1990s Finland was still the most common origin for partners of Swedish men and women. Figure 15 shows the five most frequent countries of origin of foreign partners to Swedish men in newly formed relationships between 1970 and 2005. Until the early 2000s Finland was the most common country of origin of foreign partners, after which it was replaced by Thailand. Besides unions with Nordic immigrants, unions with Polish women have been frequent throughout the period. While unions with German women became less frequent, unions with Russian and Filipino wives became relatively more common for Swedish men during the 2000s. This increased share of Eastern European and Asian wives led to a relative decrease of

marriages between Swedish men and Nordic and Western women, although their absolute numbers did not decrease (Cretser 1999; Haandrikman 2014).

The increase in Asian, particularly Southeast Asian, and Eastern European wives to Swedish men is related to an increase in marriage migrants. The number of women who moved to Sweden to marry a Swedish man increased by 44 percent in the period 1990 to 2004 (Niedomysl et al. 2010). Figure 16 shows the five most common countries of origin of foreign partners of Swedish women in newly formed relationships between 1970 and 2005. Swedish women in general partnered more often with men from Nordic and Western countries (particularly those from the U.K. and somewhat later also those from the U.S.) Even though the origins of foreign partners of Swedish women are relatively stable, the number of male marriage migrants to Swedish women has increased substantially (by 28 percent between 1990 and 2004; Niedomysl et al. 2010). Male marriage migrants, who comprise more than 40 percent of all marriage migrants, come from different origins to female marriage migrants. Whereas most female marriage migrants come from South-East and other parts of Asia as well as from Eastern Europe and Russia, most male marriage migrants come from Western Europe, North Africa and the Middle East (Niedomysl et al. 2010). Despite an increase in European integration (Sweden's EU accession in 1994 and the accession of twelve new countries in 2004 and 2007), there has been no increase in marriages between Swedes and EU citizens; there has instead been an increase in marriages between Swedes and immigrants from outside Europe. However, the composition of EU partners has shifted over time, with Swedish men increasingly marrying wives from the new EU countries (Haandrikman 2014). The stark increase in marriages with non-European partners is not unique to Sweden but is found in several European countries, although along with Switzerland and Spain this pattern is particularly pronounced in Sweden (de Valk and Medrano 2014).

Focusing on the case of immigrants, some immigrant groups (such as immigrants from north-western Europe and North America) have intermarriage rates that are clearly higher than others (such as those for immigrants from outside Europe or North America; Behtoui 2010). Differences in intermarriage rates are to a great extent explained by differences in migration patterns. For example, out of the just over 350,000 immigrants who migrated to Sweden between 1998 and 2007, 60 percent were married or cohabiting with another person. Among women this was higher (around 70 percent) and among men somewhat lower (just over 50 percent). These immigrants had either migrated together with their partner or migrated to someone living in Sweden (Statistics Sweden 2015b).



Source: Own calculations from register data extraction.

Note: Data for 1990 is missing. In this data extraction, individual countries of birth cannot be identified after 2005. DE=Germany; DK=Denmark; FI=Finland; GB=United Kingdom; GR=Greece; NO=Norway; US=United States; YU=Yugoslavia.

Figure 16 Top five countries of origin of foreign partners of Swedish women, newly formed relationships 1970-2005

Table 2 displays the shares of single or coupled immigrants by reasons for immigration (residence permit). The majority of family reunion migrants and refugees who arrived in Sweden were reported as being in a relationship, but the majority of labour migrants and students arrived as singles. For Nordic and EU migrants, it is not possible to distinguish between reasons for immigration. About half of these arrived as singles and about half were in a union.

Among those immigrants who were in a union upon immigration, the majority had a partner from the same birth country group.¹⁴ This pattern is particularly pronounced among refugees. Among family migrants, more than half had a partner from the same birth country group, and almost one third had a partner from Sweden. The most common birth countries for women in this group are Thailand, the Philippines, and Russia, and for men Turkey and the U.S. (Statistics Sweden 2015b).

¹⁴ In this case, six birth country groups were defined by Statistics Sweden: Nordic countries (excluding Sweden), EU (excluding Nordic countries), the rest of Europe. Non-European countries were categorized according to their development (Human Development Index) as countries with high HDI, countries with medium HDI, and countries with low HDI (see Statistics Sweden 2015b).

Table 2 Number of foreign-born immigrants by sex, family status at immigration and reason for residence permit. Percentage and number of immigrants

	Reasons for permit	Couples	Singles	Sum	Number of immigrants
Women	Family reunification	84	16	100	79,423
	Work or study	28	72	100	9,204
	Asylum	71	29	100	25,492
	EU/Nordic	51	49	100	60,062
	Total	68	32	100	174,181
Men	Family reunification	79	21	100	43,597
	Work or study	34	66	100	23,455
	Asylum	59	41	100	39,849
	EU/Nordic	44	56	100	70,035
	Total	54	46	100	176,936
Total number of immigrants		214,250	136,867		351,117

Source: Statistics Sweden 2015b

Note: Data refers to immigration year 1998–2007, and includes only immigrants who were registered in Sweden at the end of the year of immigration. Couples comprise married couples and unmarried couples with common children.

Of those immigrants who immigrated as singles (in the years 2003 to 2007), approximately two-thirds of those who stayed in Sweden were still single and one third were in a union after five years (Statistics Sweden 2015b). Of those immigrants who arrived as singles, immigrants from Western European and other Western countries had high intermarriage rates while non-Western immigrants had low intermarriage rates (Dribe and Lundh 2008). In short, it can be said that immigrants from countries that are more distant in terms of values, religion, or language are less likely to intermarry with natives (Dribe and Lundh 2011). Women from Eastern Europe and Asia are, however, an exception to this and have high intermarriage rates, which is related to their specific migration patterns (Dribe and Lundh 2008; Dribe and Lundh 2011).

Data and Methods

This dissertation is a quantitative study of the determinants and consequences of intermarriages in Sweden and Denmark. In all four papers of this dissertation I use register data which is collected by administrative authorities and made available for research purposes by the statistical authorities of the countries in question. Register data covers the total population (or a large fraction of the population), which is particularly important when studying rare events such as intermarriage. In none of the surveys available, however, are intermarried couples covered in sufficiently large numbers to make detailed statistical analysis. Another major advantage of the data is its longitudinal structure, which allows the monitoring of individuals over time as well as the use of

specific statistical methods such as individual-level fixed effects (for more detail, see Paper III). Register data allows linkage between spouses as well as between children and parents. This is necessary in addressing the subject of this dissertation, since the characteristics of both spouses are needed to define the intermarriages as well as to analyse the research questions in more depth. Moreover, the linkage between parents and children provides the opportunity for statistical analysis such as the use of family-level fixed effects (for more detail, see Paper IV).

The Swedish register extracts used for this dissertation are part of the project called *Male Fertility and Parenthood* (PI: Maria Stanfors, Lund University), which was granted ethical approval by the Ethical Review Board. The data extract for this project covers all individuals in the birth cohorts 1942 to 1989 who resided in Sweden at some time from 1961 onwards, together with their partners, children and (with somewhat less coverage) parents. Most of the data covers the period 1968 to 2009 (although certain information is only available for the years 1990/1991 to 2009). For immigrants arriving before 2006, information on country of birth is available, while only region of birth is available for immigrants arriving between 2006 and 2009. Access to the Danish data was made possible by the INTERREG project *Job og Uddannelse i Øresundregionen*. This project is aimed at the study of second-generation immigrants, which is why the sample population consists of all second-generation immigrants (individuals born in Denmark with at least one parent born abroad) aged 0 to 40 who lived in Denmark between 1980 and 2015) as well as four native and two immigrant control individuals (matched on sex and age) plus the (biological) parents of the sampled and the control population. As a consequence, parents are overrepresented among the immigrants in the data.

Description of the Data Sources

As most of the empirical part of this dissertation is based on Swedish register data, my data account will focus on Swedish data. Only when major differences in the registration system exist (as in the registration of non-marital unions) will I describe the Danish register data in greater detail.

Sweden has a long history of population registration. The first (non-systematic) type of personal registration was in the form of church books as early as in the seventeenth century, and this gradually developed to cover the total population and be used for statistical purposes. During the eighteenth century the production of population statistics became centralized, which eventually led to the establishment of Statistics Sweden (*Statistiska Centralbyrån*) in 1858. Thereby Sweden became the world's first country with a statistical authority. In addition to statistics on areas such as total population, this central authority produced statistics on the distribution of property, agriculture, general education, and poor relief. Larger changes were made in 1947 with the introduction of a personal identification number for every person registered in

Sweden (Skatteverket 1982). Since 1968, information on the total population in Sweden has been available from the Total Population Register (*register över totalbefolkningen, RTB*), a stock register which contains data on the registered population as per 31 December of each year (Statistics Sweden 2006). The central authority that holds the overall responsibility for population registration in Sweden today is the Swedish Tax Agency (*Skatteverket*, and prior to that *Riksskatteverket*). Changes in the population register (births, deaths, immigration and emigration, migration and changes of address, changes in civil status) are reported by the Swedish Tax Agency to Statistics Sweden and the Total Population Register.

The Total Population Register forms the basis of the data used in this dissertation. The serial number in the data (which is an anonymized version of the personal identity number) enables those couples who are formally married or living at the same dwelling unit (*fastighet*) to be identified. A family in the Total Population Register is defined as individuals who are in a relationship with each other; i.e. those who are married or registered partners (for same-sex couples) or who are registered in the same dwelling unit and are the parents (biological/adoptive) of children living in the household (dwelling unit) as well as the legal guardians of other children. Cohabiting couples who are not legally married and who do not have common children cannot therefore be identified in the Swedish Total Population Register.¹⁵

The analysis made in all the studies in this dissertation is based on the linking between partners. In Sweden, the identification of non-marital cohabitations with common children has only been possible since 1990, which is why the study is concentrated on the period 1990 to 2009. Papers I and II focus particularly on the start of these relationships, and are therefore restricted to the period from 1991 to 2009 (since the incidence of marriage/non-marital cohabitation is only identifiable from 1991 onwards). Paper III uses Danish register data, which in many respects is the same as Swedish register data. The Danish civil registration system was established in 1968 and provides a personal identification number (CPR number) for all persons registered in Denmark, which makes possible the linkage between partners. Since the establishment of the civil registration system, the spouse's CPR number has been registered along with the date of marriage (Pedersen 2011). The major advantage of using Danish register data is that it has also been possible since 1980 to identify cohabiting partners without common children, as the Danish civil registration system includes registration at address level. Statistics Denmark defines cohabiting couples without common children as being two individuals registered at the same address who are of the opposite sex, who have an age gap of less than 15 years between them, whose families are not related, and who have no other adults registered at the same address. Individuals aged 16 or older can be defined as being part of a cohabiting couple (Statistics Denmark 2017a).

¹⁵ Since 2012 the apartment number has been included in the Total Population Register, which makes the identification of non-marital cohabitations possible (Statistics Sweden 2015a).

The linking between parents and children is based on Statistics Sweden's Multi-Generation Register (*Flergenerationsregistret*) which was used for Papers II and IV. The Register contains links between biological and adoptive parents and their children. In order for this to be included in the Total Population Register the information has also been retrieved from the National Tax Authority as well as from older national registration material and Statistics Sweden's Register of Births. The Multi-Generation Register was first set up in 2000 and is updated annually (Statistics Sweden 2012). Because consistent information on date of adoption is only available from 1991 onwards, in the case of Paper II I made use of the first date of migration and the first date of registration at a Swedish municipality to estimate the date of adoption for foreign adoptees, a procedure that is also suggested by Statistics Sweden (2012).

Other registers that were used in this dissertation are the Income and Taxation Register (*Inkomst- och taxeringsregistret, IoT*), the Register of Education (*Utbildningsregistret, UREG*), and registers on dates of migration. The Income and Taxation Register includes all taxable incomes. This Register is drawn up on an annual basis and relates to the particular income year. The information in the Register is mainly retrieved from the National Tax Authority and other authorities such as the Swedish Social Insurance Agency (*Försäkringskassan*), the National Board of Student Aid (*Centrala studiestödsnämnden, CSN*), the Swedish Defence Recruitment Agency (*Pliktverket*), and the National Board of Health and Welfare (*Socialstyrelsen*). The income information used in this study is *income from work (sammanräknad förvärvsinkomst)* which is the sum of income from employment and income from own business. As well as wages and salaries, income from employment includes benefits and premiums, sickness benefit, parental leave benefit, pensions and other income related to work (Statistics Sweden 2009).

The Register of Education is an activity register that contains information on the population's educational attainment. Information on completed educational degrees is retrieved from schools and other educational institutions as well as from censuses (*Folk- och Bostadsräkningen, FoB 70 and FoB 90*) and other administrative registers that contain information on educational degrees (Statistics Sweden 2012). For immigrants who did not obtain an educational degree in Sweden, the information from censuses is supplemented by an annual survey of newly arrived immigrants (from 1999 onwards). A survey was carried out in 1995 on the educational attainment of immigrants who immigrated between 1990 and 1994. For immigrants with a university education, information on educational attainment is also supplemented by information from the Swedish Council for Higher Education (*Högskoleverket*, from 2000 onwards), which is responsible for the recognition of foreign degrees (Statistics Sweden 2010b). Furthermore, some special registers on changes in personal identification numbers and the suspected re-use of identification numbers have been used to improve the quality of the dataset.

Quality Assessment of Register Data for Research

Using register data for research in the social sciences can have both advantages and disadvantages. Compared to survey data, it only contains information that has been collected by different authorities, not by researchers. This means limited information on potentially interesting questions such as attitudes and opinions. However, the advantages – particularly for this study – outweigh the disadvantages. Registers cover the total population, which reduces bias due to selected survey and/or item non-response and attrition. When studying rare events in particular such as intermarriage only large-scale data covering the entire population makes detailed analysis possible. Moreover, the data is very accurate as the reporting to the population registration system is generally carried out by professional staff, and the data is thus reported with low measurement error (Statistics Sweden 2006). However, in relation to events such as immigration and emigration, the data suffers from under-coverage and over-coverage. Under-coverage occurs because the administrative procedures of registering immigrants in the Population Register are lengthy. Under-reporting of emigration leads to over-coverage in the registers, which is estimated to be 2.8 percent for non-Nordic foreign citizens (Statistics Sweden 2006).

Summary of Papers

Paper I: Opposites Attract – Assortative Mating and Immigrant–Native Intermarriage in Contemporary Sweden

Immigrant-native intermarriage is often studied in the context of immigrant integration and is regularly regarded as the final step in the assimilation process (Gordon 1964). A rather neglected aspect of this is the fact the natives need to be as willing as the immigrants to intermarry. The objective of this study is (1) to analyse the determinants of native exogamy, which is a rather understudied topic in the literature on immigrant-native intermarriage, and (2) to address assortative mating patterns in the marriages of Swedes with immigrants. Focusing on the native majority instead of the immigrants gives us a better understanding of societal openness towards minorities in the majority's marriage market.

As previous studies have shown, new intermarriage patterns have emerged alongside the frequent marriage patterns between Swedes and immigrants of Nordic origin. The number of marriages, particularly of men, with immigrants from outside the EU has increased vastly. In this study I therefore distinguish between different kinds of intermarriage and contrast the marriages with immigrants from other European and Western countries to marriages with immigrants from different non-Western origins.

By also distinguishing between intermarriages with immigrants who were resident in the country before marriage and marriage migrants who migrated to Sweden for the purpose of marriage, I analyse whether the intermarriage patterns differ between these groups. Where intermarriages differ systematically from endogamous native marriages, it may be concluded that the partners do not regard each other as social equals. Intermarriage patterns therefore have the potential to reveal implicit ethnic hierarchies with respect to immigrant origin and migrant status.

By using binary and multinomial logit models, the study gives a comprehensive account of natives' determinants of intermarriage and the joint distribution of education and age in intermarried couples. Using binomial and multinomial logit models, I analyse all the endogamous Swedish marriages and immigrant-native intermarriages (incl. non-marital cohabitations with common children) that took place in the period from 1991 to 2009. The results show that older Swedish men and men in higher-order relationships as well as Swedish women with lower socio-economic status are more likely than younger men and women with high socio-economic status to marry immigrants and marriage migrants in particular. The patterns also show strong associations between the age gap between partners and intermarriage for both men and women. In particular, marriages with considerably younger partners (seven years or more) are more likely to be intermarriages. The associations are stronger for marriages in which the partner comes from Latin America, Asia, Africa or the Middle East – the immigrant groups seen to have relatively low status in the natives' marriage market. These associations are also stronger in marriages with marriage migrants than in marriages with immigrants who were resident in Sweden before they met their partners.

The findings of this study suggest that intermarriages involve an exchange of age and ethnic status, particularly of age and prospective residence permit. This study illustrates that boundaries manifest themselves not only by excluding immigrants of certain ethnicities from the pool of marriage partners but also by allowing them in if they have something to offer in return. In the Swedish case, this is likely to be age.

This study contributes to the literature in various ways. It is one of few studies that brings into focus the native majority's intermarriage patterns. The findings suggests that status exchange patterns are more prevalent among marriages with immigrants of lower ethnic status, which in turn suggests that immigrants are perceived not to be equal marriage partners. The results of this study also show that in globalized marriage markets marriage migrants have to be regarded as a different category of migrants who may be willing to use marriage as a vehicle to obtain a residence permit in Western countries. Another important contribution of this study is to show that, in contrast to the conventional understanding of status exchange, age may be an asset more relevant to status exchange than education. Lastly, the strong symmetry of intermarriage patterns between Swedish men and women show that both value younger age in the marriage market – another symbol of the high level of gender equality of Swedish men and women.

Paper II: Racial Discrimination in the Marriage Market? An Exploration of Swedish Adoption Data

Racial preferences in the marriage market are widely acknowledged in the demographic, psychological and sociological literature on dating and marriage. Previous studies have not, however, been able to show if these preferences have to be considered as a form of cultural preference or of racial discrimination. This study is intended to contribute to the literature by offering a specific test of racial discrimination in the marriage market. To investigate racial discrimination, I use unique Swedish data on international racial minority adoptees who were adopted by white majority parents and have formed unions with members of the white majority. By comparing assortative mating patterns in adoptee-native marriages with assortative mating patterns in immigrant-native marriages and in endogamous Swedish marriages, I can explore the extent to which assortative mating patterns have their origins in cultural preferences and the extent to which they have to be viewed as racial discrimination.

I focus on age-assortative mating patterns in inter-ethnic marriages and compare these to the assortative mating patterns of endogamous majority population couples. As the first paper of this dissertation as well as other studies (e.g. Balistreri et al. 2017) have shown, age is an increasingly important measure of status exchange. In Sweden, the age gap between native men and immigrant women in intermarriage is substantially larger than that between partners in endogamous Swedish couples. The objective of this study is to explore whether the larger age distances in intermarriage can be attributed to immigrant status and cultural differences or whether they are a result of racial discrimination in the marriage market. Assortative mating patterns that take the form of status exchange are a strong indication of the differential treatment of minority groups in the marriage market. Comparing three types of marriage – adoptee intermarriage, immigrant intermarriage, and endogamous native marriage – gives the potential to distinguish between immigrant culture and race for three origin regions: Latin America, Southeast and East Asia, and South Asia. Because international adoptees differ from the native majority population in terms of race but not cultural socialization, the comparison between immigrants, international adoptees and non-adopted natives provides the opportunity to investigate the origins of age heterogamy in these marriages.

To distinguish race from immigrant status and culture, the study makes use of Swedish register data on international adoptions. Age differences in endogamous marriages and different kinds of intermarriage are explored by OLS regressions of age distance between spouses on marriage type (endogamous Swedish marriage, immigrant-intermarriage, adoptee-intermarriage). Because adoptees and immigrants differ in terms of a variety of characteristics, the samples in the final specification are balanced with respect to these observed characteristics by using propensity score matching.

A comparison of assortative mating patterns in immigrant intermarriages, international adoptee intermarriages, and endogamous native marriages reveals more pronounced hypergamy patterns in the first two marriage types than in the latter type. The results show that all intermarriages reveal significantly larger age distances in the first two marriage types than in endogamous Swedish marriages. While the age distance is between two to three years larger in immigrant intermarriages than in endogamous Swedish marriages, the age distance is between ten months and two years larger in adoptee intermarriages.

The larger age gaps in intermarriages can be understood as a form of status exchange, where individuals with lower ethnic status compensate for this in the form of higher status in other characteristics (in this case, younger age) when marrying individuals with higher ethnic status (Swedes). The study results show that this type of exchange occurs with respect to both immigrant status and mere racial status. The findings of this study also show that there are marked group differences. The smallest additional age gap is found in the marriages with East Asian/Southeast Asian adoptees, but the difference between immigrants and adoptees is particularly large in this group. The pronounced difference between immigrants and adoptees from East Asia and Southeast Asia can partly be explained by the specific characteristics of adoptees from East Asia and also partly by the particular immigration patterns of immigrants from Southeast Asia. The difference in coefficients is much smaller between Latin American immigrant and adoptee-intermarriages because Latin American adoptee-intermarriages display larger age gaps than do Southeast/East Asian adoptee-intermarriages. The magnitude of the age gaps in South Asian immigrant intermarriages and adoptee marriages is comparable to those for the Latin American group.

This study is the first to address the difference between race-based status exchange and immigrant status exchange, and it is novel in that it uses international adoption to Sweden for examining the relative importance of these two types of exchange. A key contribution of this study is the finding that not only do perceived cultural differences lead to differential treatment but also that a purely physical difference leads to differential treatment in the marriage market.

Paper III: Cohabitation Premiums in Denmark: Income Effects in Immigrant–Native Partnerships

This paper is co-authored with Anna Tegunimataka. The author of this dissertation developed the idea for the paper, was mainly responsible for the theory and previous research sections, and performed the statistical analyses.

Unlike the first two papers in this dissertation, this paper focuses on immigrants in intermarriages. For immigrants, intermarriage can be an important path for integration, not least for their economic integration. Several studies have addressed

‘intermarriage premiums’; i.e. positive income effects for immigrants who are married to a native (e.g. Meng and Gregory 2005; Dribe and Nystedt 2015). Until now the results of these studies have been inconclusive; the findings vary between no effects and strong positive income effects of intermarriage, and differ between countries and immigrant groups. The explanations for these inconclusive findings are, however, also related to methodological and data shortcomings (Furtado and Trejo 2013).

The objective of this study is to analyse intermarriage effects on income development in Denmark. The motivation for using Danish register data in this study is to use a particular feature of the Danish data, which is the registration of non-marital cohabitation. Analysing income trajectories before and after the point of relationship start can tell if an increase in income is the direct consequence of the onset of a union with a native. Past studies using similar methods have been criticized for being potentially misleading in their attempt to account for selection into intermarriage where they have used too short panels and the actual wedding date as the theoretical onset of marriage premiums. Because the wedding often takes place several years into a relationship, many of the returns to having a native partner may occur even before the actual wedding ceremony. By using the start of cohabitation (independent of civil status) and applying OLS models with distributed fixed-effects (following Dougherty 2006; Dribe and Nystedt 2015), we assess whether income effects emerge close to the start of a cohabitation with a native or whether they are the result of time-variant and invariant selection into intermarriage. Based on previous findings and theory we expect immigrants to benefit economically from having a native partner, but in contrast to previous studies we hypothesize that the gains from being in a relationship should be apparent from the start of cohabitation.

The findings from this study indicate that both living together and being married to a native Dane have substantial positive effects on income. Being formally married to a native means additional income premiums, particularly for immigrant men (and to a smaller extent for women) from middle and low-income countries. Immigrants from high-income countries also experience cohabitation and marriage premiums; however, premiums in exogamous relationships are no stronger than those in endogamous relationships, as in the case of immigrants from middle and low-income countries. These results suggest that selection on time-varying unobservable characteristics does influence the income trajectories of some immigrant groups but not others.

This study contributes to the literature by expanding the existing research on income effects of intermarriage to a previously understudied context. In contrast to other studies, this study includes non-marital cohabitation. It advances previous research by estimating the effects of cohabitation and marriage separately and by using unique register data, which allows for a definition of the start of a relationship that is better than the use of date of marriage. The method applied is particularly sensitive to the correct definition of timing, thereby making cohabitation a more suitable indicator compared to marriage.

Paper IV: Fertility Patterns and Sex Preferences for Children in Immigrant–Native Intermarriages in Sweden

In the demographic literature on immigrant adaptation to the destination context, immigrant sex preferences for children have received considerably less attention than fertility levels. Given that there are strong son preferences in certain parts of the world, analysing immigrant sex preferences for children can contribute to our knowledge on the relative importance of migrant origin and the process of adaptation related to fertility behaviour.

This study focuses on fertility patterns in intermarriages between immigrants and natives. Intermarried couples bring an interesting aspect to the study of migrant fertility, because they highlight the need to study childbearing as a joint decision of couples. In many non-Western countries, parents' preferences for boys have a notable impact on their fertility behaviour in the form of sex-selective abortions and differential stopping behaviour (i.e., parents continue childbearing until they have the desired number of sons). Both types of behaviour are found among international migrants from countries with boy preferences (e.g. Dubuc and Coleman 2007; Almond and Edlund 2008), which suggests relatively little adaptation to local fertility preferences. The particular case under study in this paper is the one where immigrants from non-Western countries partner with Swedish natives. Sweden provides a particularly interesting context for this study because it hosts many immigrants from various countries and because the majority population has a relative preference for daughters, whereas certain immigrant groups have distinct son preferences. According to theoretical considerations, the clash of gender preferences can have different types of impact on fertility behaviour in immigrant-native intermarriages.

I use event-history techniques and analyse endogamous and intermarried couples' transitions to third births for the period 1990 to 2009. Given the relatively strong two-child norm in Europe, including Sweden, transitions to third births in relation to the largely random sex composition of previous children carry information about fertility preferences. If no sex-composition preferences are prevalent, transitions to third births do not differ for parents of two boys, two girls, or a boy and a girl. Higher third-birth risks of the parents of two girls, for example, indicate a relative preference for boys because it is assumed that these parents deviate from the two-child norm in trying for a boy.

Endogamous immigrants from Eastern Europe, East Asia, and the Middle East and North Africa show fertility patterns that clearly indicate a boy preference, which is similar to the son preference in their origin regions. Endogamous Latin American and Sub-Saharan African immigrants have third-birth risk patterns that do not depict a clear sex preference for children. With respect to sex preferences for children, intermarried immigrants have fertility patterns that diverge greatly from their endogamous counterparts. Their sex-composition preferences are more similar to those of endogamous Swedish couples. Intermarriages of Swedish women and immigrant

men differ greatly, however, from the intermarriages of Swedish men and immigrant women. While native women–immigrant men intermarriages depict generally higher third-birth risks than the marriages of endogamous Swedish couples, especially when the immigrant comes from a high-fertility region, native men–immigrant women intermarriages show rather lower third-birth risks than endogamous Swedish couples.

While fertility patterns of endogamous immigrants in Sweden largely conform with theory, the fertility patterns of intermarried couples are much more diverse than theoretically expected and do not indicate clear sex-composition preferences in intermarriages. The results generally show that gendered patterns of continued childbearing, which are related to the preference for sons, are not maintained in intermarriage. The most noticeable pattern is that the intermarriages of Swedish women and immigrant men generally have high third-birth risks independent of the sex composition of their previous children. Because the third-birth risks are particularly high where the man comes from an origin country in which endogamous immigrants also show high third-birth risks, these patterns argue against an interpretation of the higher bargaining power of natives having a larger impact on fertility decision-making; rather, they show that both partners' fertility preferences have a distinct impact on fertility behaviour and that intermarried women are a selected group with preferences for a larger number of children.

This study makes two important contributions: it looks at intermarried migrant fertility, which is largely outside the focus of research on migrant fertility in Europe, and it contributes to the emerging literature on immigrants' sex preferences for children. The lack of research on intermarried migrant fertility is surprising, because this is an important aspect of the demographic integration of (intermarried) immigrants. In particular, continued childbearing in relation to the sex composition of previous children informs about immigrant sex-composition preferences and adaptation to local norms. By focusing on intermarried couples, this study emphasizes that each partner can have diverging fertility preferences and that a couple perspective in the study of (immigrant) fertility is needed.

Conclusion

The aim of this dissertation has been to study the determinants of immigrant-native intermarriage and to analyse which consequences these have. The particular context for the four studies in this dissertation are two Nordic countries, Sweden and Denmark, around the turn of the millennium. Similar to many other European countries in this period, Sweden and Denmark have experienced large inflows of international migrants from various origins. Moreover, the two countries are characterized by a relatively high level of social mobility and gender equality and the presence of different types of family formation, of which formal marriage is only one. In addition, assortative mating

patterns have changed since World War II. Educational homogamy is relatively low in international comparison, and female educational hypogamy has become a common pattern among Swedish couples. In the same period, the marital norms of an older man marrying a younger woman have weakened as female age hypergamy has decreased and age heterogamy has risen in past decades. In international comparison, these Nordic countries can be described as particularly open and egalitarian societies.

The large inflows of immigrants since World War II have been accompanied by growing numbers of immigrant-native intermarriages. The growing share of migrants in a population is certainly a prerequisite for large-scale intermarriage to occur. However, the question that this dissertation attempts to answer is whether aspects other than opportunity structures are important for explaining the occurrence of intermarriage and the particular nature of intermarriage. More specifically: (1) Who crosses the immigrant-native boundary through marriage? (2) Are these boundary-crossing relationships of a special nature? and (3) Does immigrant-native intermarriage contribute to integration?

The findings of this dissertation show that for natives both economic and non-economic status in the marriage market are associated with intermarriage. The general patterns show that Swedish men and women with lower marriage-market status have been more prone to intermarry. Even though low status is associated with intermarriage with immigrants from different origins, this pattern has been particularly strong in marriages with marriage migrants. This finding could indicate that natives who have comparatively low status in the Swedish marriage market are more likely to “recruit” partners from abroad. With regard to research question (1), it appears that Swedish men and women who intermarry do not belong to a mobile elite but rather have characteristics that are less desirable in the marriage market, particularly in unions with marriage migrants. As well as the individual attractiveness of natives in the marriage market, assortative mating patterns appear to be associated with intermarriage. Patterns of age-assortative mating in particular differ between types of intermarriage and endogamous native marriage. For both Swedish men and women, unions in which the partner is considerably younger are relatively common among immigrant-native intermarriages. Moreover, these patterns roughly follow an ethnic hierarchy in the marriage market since the associations have been stronger in intermarriages with immigrants whose origin is commonly rated as less attractive in the partner market. They have also been stronger among marriages with marriage migrants than among those with resident migrants, and here too they follow the patterns of an ethnic hierarchy in the marriage market.

With regard to research question (2), the patterns of intermarriage found in this study indicate that intermarriage is not simply an expression of more openness towards immigrants but that these boundary-crossing relationships are also of a particular nature. Intermarriage is likely to be related to individual status and status considerations in the marriage market. The findings lend support to a status exchange interpretation which suggests that majority natives are more inclined to marry immigrants

(particularly immigrants of low ethnic status) if they receive high status in the form of other characteristics in return. In particular the age-assortative mating patterns in marriages with marriage migrants support this idea because under the conditions of restricted entry to Western countries marriage migration is one of few opportunities to obtain a residence permit. Thus, marriage migrants constitute a particular group of migrants who are likely to be more receptive to status exchange. A somewhat surprising finding is the strong symmetry of assortative mating patterns among intermarriages of Swedish men and Swedish women. While there are gender differences with respect to the immigrants' countries of origin, the patterns of status exchange are similar among men and women. Status exchange theory, however, predicts gendered patterns of status exchange in which women marry up in terms of socio-economic status. Merton (1941) specifically refers to the fact that the theory has been developed in the context of a society in which the male was expected to be the main provider. The finding of gender symmetry in status exchange patterns could indicate that this expectation has faded in Sweden, and that the educational achievement of males is not necessarily the most relevant status characteristic in the marriage market.

An important contribution of this dissertation is to show that the origin of pronounced female age hypergamy in intermarriage lies not only in the differential treatment of certain immigrant groups in the Swedish marriage market but also partly in racial discrimination. By exploiting data on international adoptees in Sweden, this dissertation shows that age-assortative mating patterns exist in natives' marriages with adoptees to an extent similar to immigrant-native marriages. Because international adoptees are similar to majority native Swedes in terms of cultural socialization but differ in race, it is likely that these patterns reflect racial discrimination in the Swedish marriage market. These findings rely heavily on a sample of international adoptees that is relatively small and limited to certain regions of origin, and comprises a limited number of cohorts. Given these limitations, the results may not be generalizable to other geographic contexts or periods. This study is, however, the first in the literature to address the difference between race-based status exchange and immigrant status exchange, and has the potential to inform about the nature of discrimination in the marriage market. The findings of this study should encourage further research on patterns of ethnic and racial sorting in the private sphere.

The findings of the first two studies in this dissertation suggest that immigrants, at least those from certain origins, are not regarded as equals (cf. Kalmijn 1991) and that patterns of social exclusion and the differential treatment of immigrants also apply to the private sphere. The findings of these studies show that more frequent intermarriage with immigrants from non-Western countries, which has been observed in Sweden in recent decades, is not necessarily a sign of growing openness on the part of native Swedes but may rather be related to status considerations; that is, being offered attractive characteristics in return. In this regard, intermarriage reflects the social structure of the society and does not necessarily contribute to social inclusion and openness. The findings of the last two studies in this dissertation show with respect to

research question (3) that intermarriage nevertheless has the potential to change the social structure. The question of how intermarriage is related to the economic integration of immigrants has received particular attention in the literature. The findings of this dissertation show that intermarriage leads to positive income development for certain immigrant groups. For immigrants from non-Western middle and low-income countries who generally experience more difficulties in the labour market, income growth is clearly related to the onset of a relationship with a native partner. These findings indicate that intermarriage contributes to immigrant integration. By having a positive effect on the income development of intermarried immigrants, intermarriage has an effect on the social structure itself. Intermarried immigrants improve their position in the social structure and alter structural assimilation patterns.

Ultimately, intermarriage is related to the notion of changing group boundaries in the next generation and also the social structure of a society (Kalmijn 1991). While this is true for intermarriage between any status groups in society, this is particularly the case for immigrant-native intermarriage. Mixed families contribute to the changing social boundaries of ‘natives’ and ‘immigrants’. The limited amount of research that exists on fertility in immigrant-native intermarriages comes as a surprise not least because of the implications intermarriage has for the next generation. Furthermore, immigrants’ fertility patterns reflect another aspect of immigrant integration. This dissertation shows that intermarried immigrants’ fertility patterns, particularly in association with sex preferences for children, deviate strongly from those found for endogamous immigrants. While immigrants from certain origins display fertility patterns which evidence the existence of son preferences, intermarried immigrants from the same origins do not show such patterns by and large.

This dissertation makes a considerable contribution to the knowledge on immigrant-native intermarriages in two Nordic countries and shows how these relate to the broader social structure. In comparison to other voluntarily established relationships such as friendships, marriage is a particularly important one because it requires a certain level of commitment and is entered into with the idea that it will be long-lasting. In light of the social structure, intermarriage symbolizes the fact that “members of different social segments do not view one another as so alien that intimate relations are virtually inconceivable” (Blau et al. 1984, p. 591). Therefore, high rates of intermarriage have been seen in the literature as a sign of a broad social acceptance of different groups and a general indication of social integration (Blau et al. 1984; Kalmijn 1998; Rodríguez-García 2015). Intermarriages reflect the openness of a society to some degree. Less open societies have more formal marriage constraints such as anti-miscegenation laws or stronger normative marriage barriers that prohibit intermarriage. The increase in intermarriage that accompanied increased immigration during the second half of the twentieth and early twenty-first century in the countries under study shows that intermarriage is not hindered by the social structure. However, the findings of this dissertation also show that intermarriage is related to the social structure in a particular

way. Intermarriage cannot only be regarded as a reflection of the successful structural assimilation of immigrants (as proposed by Gordon 1964), because intermarriage patterns also mirror social stratification in which some immigrant groups are ranked differently to others. Patterns of status exchange make such hierarchy explicit: without an ethnic or racial hierarchy, there is no need for (racial/ethnic) status exchange.

However, by looking at intermarriage outcomes, the findings clearly show that intermarriage also has positive consequences for immigrants. It leads to positive income development for immigrants, which in itself improves the position of the immigrant in the social structure and contributes to altering that social structure. Similarly, gendered patterns of continued childbearing which are related to preferences for sons are not maintained in intermarriages. And lastly, the offspring of these marriages form a new generation that can contribute to restructuring the social order.

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Will You Intermarry Me?

This dissertation examines the determinants and consequences of immigrant-native intermarriage in two Nordic countries, Sweden and Denmark, between 1980 and 2011. An increase in immigration during the second half of the twentieth and early twenty-first century in the countries under study was accompanied by an increase in intermarriage. However, the marriages of natives and some immigrant groups are more frequent than others, which may indicate that the strength of the immigrant-native boundary differs between immigrant groups. A particular area of focus in this dissertation is the native majority population. It examines who are the natives who intermarry, and how marriage patterns such as the age gap between partners differ between intermarriages and marriages of the majority population. The findings of this dissertation show that intermarriage is related to immigrant integration, the attractiveness of the individual in the marriage market, and the demographic integration of immigrants. The findings also show that intermarriage is connected with the broader social structure in a particular way. Intermarriage requires a certain degree of openness on the part of the majority and minority populations, and is commonly viewed as a reflection of the successful integration of immigrants. However, intermarriage patterns also mirror social stratification. The intermarriage patterns of natives and certain immigrant groups show systematically different patterns, which indicates the differential treatment of some immigrant groups in the marriage market.

