Mixed Marriages Among Immigrants and Natives in Spain

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Abstract: This study investigates formation of endogamous and exogamous marriages among immigrants and natives in Spain. The study combines data from the National Immigrant Survey (2007) and the Marriages Register (2008) to examine the factors underlying participation on mixed marriages of immigrants and natives, respectively. The first analysis focuses on the immigrants' patterns of exogamous versus endogamous marriages by introducing marriage market constraints indicators and some immigrantspecific factors, apart from the usual socio-demographic controls. The second analysis focuses on the natives' patterns of exogamous versus endogamous marriages by considering the role that ethnic differences across origin groups and potential exchange of traits, instead of homogamy, may play in explaining intermarriage patterns among nativeborn Spaniards.

Keywords: marriage, immigrants, natives, event history analysis, marriage market imbalances, Spain

1. Introduction

Although a number of important studies have looked at mixed marriages between the communities who have lived in the same country for centuries (Hendrickx et al., 1991; O'Leary and Finnäs, 2002; Kalmijn et al., 2006), it can be argued that native-immigrant marriages currently dominate the European research on intermarriage. Spain is no exception to this pattern – the research on intermarriage in this country has almost exclusively focused on marriages with respect to nativity. A sizeable body of research on how preferences, marriage markets and third parties shape partner choices among immigrants in Western countries echoes widely accepted views on intermarriage as an indicator and agent of social integration of minorities (Coleman, 1994; Kalmijn, 1998). However, there are also some reasons to believe that the link between intermarriage and social integration is more complex than is commonly assumed. For instance, recent empirical evidence (see an overview in Kulu and González-Ferrer, 2014) shows that native-immigrant marriages are in general more likely to break up than endogamous marriages. Also, Song (2009) argues that intermarriage per se does not imply social acceptance since the experiences of intermarriage may vary across gender, class and region. In addition, some studies have attributed some of the integrative effects in the labour market to selection effects rather than a proper intermarriage premium (Kantarevic, 2004), although more recent analyses in other national contexts have challenged these conclusions (Meng and Gregory, 2005; Meng and Meurs, 2009). Moreover, the intermarriage premium has not been found for natives, which definitely poses interesting questions on why natives engage in mix-marriages, a topic that has received far less attention than the immigrants' marital choices (Glowsky 2007; Huijnk et al. 2010; Kalmijn 1998; 2010).

In this paper we will contribute to previous research by providing evidence on the recent dynamics of intermarriage in Spain, by analyzing simultaneously the determinants of marital choices made not only by immigrants but also by natives. For immigrants, we adopt an event history approach that represents a step forward in comparison to most of the previous studies, mostly based on the distribution of existing unions. Besides, apart from the common socio-demographic and ethnic explanations generally explored in those studies, here we also investigate the role of marriage market constraints separately by gender, largely ignored previous articles. Secondly, we

develop the available evidence for immigrants with a complementary analysis of the mix-marriage choices made by native Spaniards, incorporating again the role played by the structural conditions in local marriage markets strongly segmented by educational level, in order to shed some light on the differential incidence and composition by origin of mixed marriages recently formed in Spain.

2. Previous research on intermarriage in Spain

As a former emigration country which within relatively short time turned into an attractive destination country, Spain is considered a textbook example of migration transition (Castles et al., 2014). But, the peculiarity of the Spanish case in the story on migration in contemporary Europe does not only manifest in the speed of increase in migrant population. First, no other country in the 21st century Western Europe has had such a high share of immigrants who share mother tongue with the destination country. Second, Spain is one of the principal destinations of lifestyle migration in Europe, and a fair share of its immigrants originates from even wealthier countries. This heterogeneity in immigrant population has obviously affected the patterns of intermarriage formation in Spain, whose number strongly increased since 2000, as can be seen in Figure 1.

(Figure 1 about here)

It is noteworthy that our knowledge on the patterns of intermarriage in Spain has mostly been acquired in an indirect way: previous research on partner choices among immigrants in this country has given somewhat more attention to the determinants of endogamous choices. Cortina et al. (2008) use the data from the 2001 Spanish census to study marriage formation among the foreign-born in Spain. This paper can be considered an early evidence of intermarriage patterns in Spain in the sense that immigration flows at that time were still recent and the crisis had not fuelled yet the return of many others. The authors focus on four groups in this paper, namely the immigrants born in the United Kingdom, Morocco, Colombia and Ecuador, and analyze which characteristics are associated with being in an endogamous marriage. According to their results, Ecuadorians show the highest, while the British-born show the lowest propensity for endogamy. Immigrants who were younger at arrival as well as immigrants with a longer duration of stay were less likely to enter endogamous marriages. Similar results have been found in other European studies, and the most likely mechanism behind these findings is a lower degree of socialization in the country or origin for immigrants who arrive at a young age, as well as greater opportunities of interaction with natives the longer the stay at destination (Kalmijn and Van Tubergen, 2006, Adserá and Ferrer, 2014). Cortina and colleagues also find that less educated immigrants, especially men, were more likely to be in endogamous unions. This finding is a mirror image of a very frequent result in European studies on intermarriage - that a higher education level implies a higher likelihood for immigrants to marry a native person (Lievens, 1998; González-Ferrer, 2006; Kalmijn and Van Tubergen, 2006; Dribe and Lundh, 2008; Hamel et al., 2013). The main limitation of this study is that, due to data constraints, the authors were not able to distinguish between unions formed before and those formed after migration. In the light of previously discussed views on the link between intermarriage and integration, social researchers have largely been interested in post-migration marital behavior. This is why the launch of the Spanish National Immigrant Survey (hereafter, NIS) in 2007 was very important for the subsequent research and additional insights on mixed nativity unions in Spain.

Sánchez-Domínguez et al. (2011) use NIS to explore endogamous marriages among immigrants from Morocco, Romania, Ecuador, Colombia and Argentina. They show that men are less likely to marry around the time of migration. This result is a strong indicator that marriage migration largely takes place according to a traditional pattern, i.e. male immigrant importing female partner from the country of origin. Marriage migration is an especially common practice among Moroccans in Spain (as well as in some other European countries, see Lievens, 1999). The interplay of cultural and gender norms implies that the nature of intermarriage is also gendered (Dribe and Lundh, 2011; Lanzieri, 2012). Sánchez-Domínguez and colleagues show that, similar to other European destinations, endogamy is more common among immigrant men also in Spain. The only exception to this pattern are immigrants from Argentina – in this group the share of endogamously married immigrants is somewhat lower among men. Once the observable characteristics are taken into account the highest propensity for endogamy is found among Moroccan men and women and Romanian and Ecuadorian men. The results on the effect of education and age at migration on partner choice show somewhat more complex picture than in Cortina et al. (2008). In particular, whereas

more educated immigrant men are clearly less likely to be married endogamously, this association is not statistically significant for immigrant women. Gender differences also emerge when looking at the effect of age. Immigrant men arriving young to Spain were less likely to marry endogamously, while the opposite is the case for women. Finally, the period of migration also matters: pre-2000 immigrants had a higher propensity to be married endogamously. The authors ascribe this effect to smaller ethnic marriage markets in the early stages of immigration to Spain. This interpretation is consistent with the evidence from other countries showing a positive association between group size and endogamy (Blau et al., 1982; Van Tubergen and Maas, 2007; Chiswick and Houseworth, 2011). Although more intense individual selection in the initial phases of migration flows has also been argued to be one factor underlying higher intermarriage rates when the flows initiate, compared to the more mature phases of the immigration process, when selection decreases and co-ethnic group size increases (Klein, 2001). In fact, immigrants who arrived to Spain before the late nineties, especially from Latin America, are known to have a substantially different profile in terms of reasons for migration (more political than economic), education and national origins, compared to the most recent ones.

Esteve and Bueno (2012) also used NIS to explore marital choices of Moroccan immigrants who migrated to Spain unmarried and after 1980 -in contrast to the Latin Americans, the profile of Moroccan immigrants to Spain have remained more unchanged over time (Cebolla and Requena, 2009). Moroccan men who marry endogamously typically do so three years after migration, while those marrying a non-Moroccan woman typically do so eight years following the move to Spain. When looking at Moroccan women, no clear link was identified between endogamy and duration of stay, whereas, somewhat surprisingly, an exogamous marriage is more likely to take place early after migration than some years later. This result may suggest that the Spanish-born men also participate in transnational marriage markets. Building on the classical intermarriage literature on the influence of third parties and marriage markets on partner choices (Kalmijn, 1998; Jacobson and Heaton, 2008; Tolsma et al., 2008), Esteve and Bueno (2012) also find that chances of endogamous choice rise if migration decision was influenced by a relative or acquaintance, which in their interpretation indicates that immigrants' social networks promote endogamous marriages. The issue of individual networks on partner choices was also addressed by Del Rey Poveda and De Vilhena (2014). Using the same dataset, they focus on immigrants from Romania, Morocco, Argentina, Colombia and Ecuador and who had not been married prior to their arrival in Spain. Their study shows that the presence of family members or co-ethnic friends at the moment of arrival increases the likelihood of an endogamous partner choice for immigrant men and women as well as that it reduces the chances of marrying a native person. On a similar note, a higher degree of affiliation to Spain (operationalized by the possession of Spanish nationality) increases the chances of marrying a native.

A large majority of studies on mixed nativity marriages in Europe analyze the characteristics of the foreign-born who enter exogamous or endogamous marriages. However, it takes two to marry and it can be argued that our understanding of intermarriage is not complete without appropriate insights on the propensity to intermarry among natives. However, our understanding of the inter-marriage decisions of natives remains much more limited than that of immigrants, both in the international and Spanish literature. To our knowledge, only two studies have partially addressed this issue. Serret and Vitali (2014) compared the intermarriage patterns of natives in Spain in Italy with data from the Marriages Register. According to their results, native men who marry an immigrant from Eastern Europe, Africa, Asia and Latin America tend to be lower educated than those who marry a native spouse in both countries. In contrast, higher education is mostly positively associated with the likelihood of marrying a partner from Western Europe and North America, for both men and women. Medrano et al. (2014) found something similar when explored marriages between Spaniards and other Europeans, making a rough distinction between the natives of EU-15 countries and other EU countries (here labeled "new Europeans"): while higher education level implies a higher likelihood of marriage with an EU-15 spouse, it is lower educated Spaniards who have a tendency to marry immigrants from new EU members. In addition, they found that Spanish women more often marry a partner from EU-15 than Spanish men, while the opposite is the case when it comes to marrying a new European.

3. Theoretical expectations in the context of the changing local marriage market in Spain

Although they suggest very interesting results, the previously revised studies do not provide a convincing history of why men and women intermarriage at different rates and with different immigrant groups in Spain. According to the status homogamy theory (Becker, 1973, 1974), spouses in mixed marriages would have similar characteristics in terms of educational level and/or socio-economic status. This body of research basically concludes that people find mates who are similar to themselves in status, class, education and religion (Kalmijn, 1991, 1993, 1998), as well as race (Lieberson and Waters, 1988). In sum, that married partners tend to be the same on every dimension except gender. The assimilation hypothesis would predict the same but only in the highly-educated segment of the population, to the extent that higher education is believed to weaken attachments with the group of origin and, consequently, to blur the cultural barriers against marriage out of their own group (Hwang et al., 1995, cited in Kalmiijn, 1998: 401).

By contrast, the 'exchange' theory of Merton (1941) required marriage partners to be different in at least two key dimensions (other than gender); without differences, the "exchange" cannot take place: the immigrant partner is expected to have some valuable trait to offer to the potential native partner in exchange for the cost of crossing racial, ethnic and/or cultural lines, which might be higher or lower depending on the perceived social distance previously established prejudices between majority and minority groups¹. In endogamous immigrant couples (i.e. made up of two immigrants with no importation of partners involved), status homogamy is expected to dominate since there is not a clear trait to be exchanged². In the case of mixed marriages, the status exchange theory would predict the immigrant partners to have a higher education and/or social status than their native partner in exchange for opportunities of more stable legal status, upward socio-economic mobility and access to a safer and richer social network on behalf of the the native partner.

However, as pointed out by Mafioli et al. (2013), the educational level of an immigrant person does not necessarily imply a possibility for status exchange, even if the immigrant's educational level is higher than that of the native partner due to the limited

¹ See Rosenfeld (2005) for a thorough review and critique of the status-exchange theory.

² In imported/marriage migration couples, the opposite thing occurs because the potential importer differs in one crucial aspect: the right of residence in the country of immigration. However, the terms of the exchange are likely to vary by gender of the pioneer partner.

transferability of qualifications across borders and their different rewards in destination labour markets. Education can still remain an important factor of exogamy, because it increases social contacts and relaxes traditional links, as the assimilation hypothesis argues, but other traits like physical appearance and younger age might be more important in a potential exchange than educational levels by themselves. A large age difference is, after all, an old and well-recognized system for balancing social differences in mate selection and men, as they age, are known to choose women who are increasingly younger (Alarie & Carmichael, 2015; England & McClintock, 2009; Shafer, 2013).

Beyond the partially contradictory predictions derived from the status homogamy and status exchange theories with regard to immigrant-native mixed marriages, it is important to remind that individual preferences regarding marital choices can be seriously constrained by the structural conditions of the marriage markets as the "opportunity theory" formulated by Blau (1977) emphasized. Among others, the constraints for individuals' marital choices that derive from sex imbalances within the (partial) marriage market where individuals search for a partner, and the size of the own group within the local marriage market, are two of the most important ones. The larger the size of the own group, the more the (statistical) chances of endogamous contacts, and greater the sources of social control as well; accordingly, a negative relationship between the own group's size and propensity to mix-marry is expected. On the contrary, sex imbalances within the own group are likely to increase intermarriage rates for the minority sex at least, since the less marriageable women (men) within the same group the more likely they will be to marry a woman (man) from outside.

Bearing all this in mind, it is clear that a proper understanding of the gender and ethnic differences in the intermarriage patterns in Spain requires to better frame any empirical analysis within the context of changing marriage markets. First of all, massive immigration flows to Spain started to arrive in Spain at a time when the local marriage market was already segmented by gender and educational levels, and developing some clear unbalances. Namely, in 2007, the year before immigrant annual entries peaked, young low educated single men clearly faced a clear shortage of 'similar' women (see sex ratios above 1 for dark bars -primary and less- in age groups younger 35, in Figure 2), while highly educated women faced a clear shortage of similarly educated Spanish-

born available partners, especially in the youngest groups (see sex ratios below 1 for light-dark bars - tertiary -, in Figure 2).

(Figure 2 about here)

In absolute size, according to the Labour Force Survey data, the shortage for loweducated native men was much larger in 2007 (684,767 excess of available men in age groups 16-35) then for highly-educated women (365,501 excess of available women in age groups 16-35)³, which would predict a higher chance for mixed couples between native men and immigrant women, than the other way around. However, such expectation of a more likely matching between native men and immigrant women will be also dependent, obviously, on two other factors, at least: 1) the gender, marital status and educational level composition of the immigrant inflows that had been arriving during those years, 2) the differential propensity to cross homogamy lines by native men and women.

Firstly, regarding the composition of the immigrant inflows, by 2007, approximately 64 percent of total immigrants from any country of origin aged between 16 and 55 years old were potentially 'available' for marriage –meaning not married, as can be seen in Figure 3. However, the extent of this availability varied across genders and origins: the proportion of potentially available partners was much lower among the Moroccan women (43 percent), while it was much higher among the Colombian women and EU25 men (77 percent). In other words, opportunities to find a partner among the recently arrived immigrants substantially varied across origin groups for available native men and women, even without taking into account their respective level of education.

(Figure 3 about here)

Secondly, we know in Spain there has been an increasing trend towards educational homogamy among the most educated; this pattern has been especially strong among more educated women, even there is some indications that the traditional prevalence of female hypergamy among heterogamous unions has started to decrease for the youngest

³ Excess of available native men and women has been calculated by comparing the number of native men and women of the educational levels in year 2007.

cohorts (Esteve and Cortina, 2009). Accordingly, we should expect a stronger reluctance among native highly educated women to intermarriage with immigrants than among low-educated men, reinforcing the expected effect of the differential size of the gender and educational unbalances in the native marriage market and in the composition of the recent immigration inflows.

According to all the facts described so far, increasing immigrant inflows would increase intermarriage rates of Spanish-born women and immigrant men if a large number of the newly arrived immigrants are single and relatively highly educated men, since this is the type of men in shortage in the Spanish marriage market; conversely, Spanish-born men will be more likely to engage in mixed couples with immigrants if immigration inflows are abundant in non-married woman of relatively young ages (younger than the Spanish unmarried men), and who do not mind to marry native low-educated men, regardless of their own educational level because they get in exchange other type of advantages such as a more secure legal status and a safer socio-economic position. Note that this reasoning is not necessarily dependent on differential preferences about more or less traditional gender orientations when choosing a partner (Safranoff, 2015). Single immigrant women, regardless of their own educational level and their preferences regarding gender roles within the couple, have lower bargaining power than Spanishborn women due to their more vulnerable legal and, generally, weaker socio-economic situation. At the same time, low-educated Spanish-born men may find them more attractive as potential partners when the local marriage market suffers from a clear shortage of native marriageable women for them.

In the next sections, we will explore a little further the characteristics of the endogamous and mixed couples formed in Spain since 1996 up to 2008. Unfortunately we cannot actually model marriage as a bilateral decision but just to find out whether patterns of status-exchange, status homogamy and assimilation can be traced back in each type of marital choice [(1) immigrant with native-born Spanish, (2) immigrant with immigrant], distinguishing by gender, education and national origin of each partner.

4. Data and methodology

4.1. Data and methodology for the analysis of immigrants' marital choices

The individual level data for the empirical analysis on the marital choices of immigrants are drawn from the 2007 National Immigrant Survey (NIS), released by the Spanish National Institute of Statistics. This partially retrospective survey covers a wide range of questions on socio-demographic characteristics and migration experience among the foreign-born in Spain. In total, 15,500 individuals born outside Spain were surveyed. In our analysis we only include immigrants who immigrated at marriageable age (16 and older) to Spain in 1995 and after, and younger than 55 years old at the time of the survey. Immigrants who married Spanish born partners before coming to Spain are excluded from our sample since the theoretical reasoning developed to explain intermarriage decisions in immigration countries do not apply to them, and their marital decision was made in a different marriage market. Only individuals who had spent at least one year in Spain before marrying endogamously or exogamously are thus included. In addition, this decision guarantees comparability with the analyses carried out for natives' choices, which are based on data from the Spanish Marriage Register that does not include marriages celebrated abroad (see more below). The main characteristics of the immigrants included in our analysis sample from NIS 2007 are summarized in Table 1.

(Table 1 about here)

Dependent variable is transition to the first marriage in Spain in year *t*. The origin of the partner is also taken into account so that each immigrant who migrates to Spain unmarried is at risk of two competing events: 1) marriage with a spouse born in the same country (endogamous marriage), and 2) marriage with a Spanish-born spouse (exogamous marriage). Of course, some immigrants enter mixed immigrant marriages by marrying immigrants from other countries, but we do not analyze these marriages due to a very small number of events recorded in the survey. They were excluded from the analysis sample to avoid noise in the results.

Multivariate analysis is based on discrete-time multinomial logit or competing risk model. The time is measured in terms of years since migration and its squared term. Age at arrival is controlled for by a categorical variable with the following categories: 16-20, 21-25, 26-30, 31-35, and 36 years of age or more at arrival in Spain. Education level refers to the education received by the time of the survey and is categorized as:

primary school or less, lower or upper secondary, and more than secondary. Migration motivation is divided into three categories: economic migrant, student and other. Two indicator variables, having child before migration and having work experience before migration, are introduced to control for the heterogeneity of immigrant population with respect to their pre-migration experiences. The model also controls for Spanish citizenship and home ownership in Spain.

The data on group size and sex composition of immigrant groups by country of birth stem from the Municipality Register which is administered by the Spanish National Institute of Statistics and includes most immigrants living in Spain regardless of their legal status. Group size denotes the number of individuals born in the same country and living in Spain in the year of observation. The log transformation is used to reduce skewness. Sex ratio measures the number of co-ethnics of the opposite sex divided by the number of co-ethnics of the same sex who live in Spain.

Finally, the heterogeneity of immigrant population with respect to social distance from native Spaniards is controlled for by a categorical variable that distinguishes between immigrants from: EU25, Morocco, Romania, Ecuador, Colombia, other European countries and other Latin American countries. All remaining foreign-born population is grouped into a residual heterogeneous category. The limited size of the sample did not allow to run separated models for each origin group. Duration of stay in Spain, Spanish citizenship, group size and sex ratio are time-varying variables and refer to year t. Home ownership is also a time-varying variable and refers to year t-1. All other variables are time invariant.

4.2. Data and methodology for the analyses of natives' marital choices

The empirical analysis of natives' marital choices is based on individual level data from the Spanish Marriage Register from the National Institute of Statistics for the year 2008. The year 2008 was chosen in order to maximize the number of relevant explanatory variables available for our goal –in previous years, the Marriage Register data lacked of information on educational level and type of activity status of each partner⁴; and also to

⁴ Unfortunately, although included since 2008, this information was initially not very well recorded and remained missed for between 17 and 35% of the cases depending on the group and the variable. In addition, the distribution of the missing cases was not random across regions; for this reason a missing category is included in the multivariate analyses.

be the closest one to the date when the NIS was carried out (2007, see above). It is important to emphasize that the use of this data implies a restriction only to marriages celebrated in Spain. This could lead to a certain underestimation of mixed marriages because an unknown part of them might have been celebrated abroad, even after migration of the immigrant partner. At the same time, these data exclude de facto couples (non-married ones), which are relatively common among some of the most important migrant groups in Spain (Cortina et al. 2010). Finally, the analysis concentrates only on heterosexual marriages (same-sex marriages are registered in Spain since 2005). In spite of these limitations, marriage records offer relatively detailed socio-demographic information for the two spouses, especially since 2008. Table 2 summarizes the characteristics of marriages' sample utilized for the analyses of natives' marital choices.

(Table 2 about here)

We conduct multinomial regression models to estimate the likelihood of natives (men and women separately) to have married a foreign born spouse from a particular country/region of birth (Morocco, Romania, Ecuador, Colombia, EU25, Rest of Europe and Other) instead of another native. Accounting for the country of birth instead of the citizenship reduces the potential bias introduced by the increasing rate of naturalizations occurring in Spain over the last fifteen years. In addition, due to the very small size of the second generation of adult age in Spain in 2008, this decision seems adequate.

In the multivariate models we first control for the main individual characteristics of the native spouse: age (in quadratic form), education, occupational status. Secondly, we introduce the marriage order, defined according to the marital status of the native spouse (first order when he/she was single before marrying, and second when he/she was widowed or divorced). Finally, we also take into account the characteristics of the couple: age gap (up to one year of age difference between the spouses, older man, and older woman) and educational homogamy (same educational level, higher for him or higher for her) in order to explore the extent to which some sort of exchange seems to be taking place in this type of mixed marriages.

5. Results

5.1. Immigrants' marital choices

Since we are dealing with competing risks, the patterns of post-migration marriage formation can be analyzed using the cumulative incidence approach described in Coviello and Boggess (2004). Figure 1 shows that endogamy is a prevailing choice for immigrant men. Around 30 percent of immigrant men marry a co-ethnic within the first ten years since migration to Spain. Cumulative probability of the formation of endogamous marriage is roughly the same for men and women in the first three years following migration, but from that point on women opt for a co-ethnic partner less frequently than men. In accordance with the previous literature but also in line with the largest size of the shortage of potential native female partners for low-educated men, immigrant women enter intermarriage with natives more often than men and more often than they marry a co-ethnic. These patterns are already visible since the first year after the arrival. The share of those who marry a native partner - roughly 40 percent within the first ten years in Spain - is almost twice higher among women than among men.

(Figure 4 about here)

Table 3 displays the results of the discrete-time multivariate analysis for immigrants' marital choices in Spain. The results show that the association between duration of stay in Spain and marriage formation has an inversed U-shape. The risk of marriage increases with duration in the initial period following the arrival, and then it starts to decrease. As far as the migration motivation is concerned, economic migrants -both male and female- are less likely to enter a native-immigrant marriage than an endogamous one. Having a child before migration increases the probability of entering both types of marriage, although not all coefficients are statistically significant. We are not able to control for marriage order, but this result may suggest that people who already experienced a union dissolution are more likely to form unions following migration. Having at least some pre-migration work experience implies a higher likelihood of marrying a native Spaniard. Importantly, there is no statistically significant association between the possession of Spanish citizenship and marriage formation. On the other hand, home owners, which are likely to be individuals with larger economic resources, are more likely to marry, and this association is especially strong when it comes to the risk of marrying a native. Differences across immigrant groups are substantial, even after controlling for observable characteristics. Immigrant men and women from the EU25 countries are the least likely to enter an endogamous marriage, in spite of their relatively smaller social distance with natives, whereas Moroccans, Romanians and immigrants from European countries outside the EU25 show a particularly high propensity for endogamy.

All findings discussed so far are characterized by a modest degree of gender differences. However, some other results show more pronounced gender patterns. For instance, age at migration matters more for immigrant men than women. Men who are of age 16-20 at arrival are less likely to marry than other men, especially when it comes to marrying a co-ethnic. The most likely explanation is that many of these men were very young (and consequently, unmarried) at the time of the survey too. Interestingly, gender patterns also arise looking at the impact of education. In particular, more educated immigrant men are more likely to start a marriage. This association is particularly strong as far as the risk of intermarriage is concerned – immigrant men with some post-secondary education are three times more likely to marry a native as compared to men with primary school or less. This result is clearly in line with the expectations derived from both the assimilation approach and the characteristics of the native marriage market in Spain, as described in previous sections. In contrast, the association between education and marriage of either type is almost inexistent among immigrant women, which reinforces our expectation that education of immigrants is not necessarily the most sought for trait by natives willing to cross ethnic lines to find a partner, especially if they are low-educated men, the ones suffering from the largest shortage of potential partners in the local marriage market.

The highest propensity for endogamy among men is found among male economic migrants and female migrants who did come to Spain for non-economic and non-educational reasons. Gender differences can also be identified when looking at the impact of structural factors on partner choice. Among men, somewhat surprisingly, there is no association between the size of own group and the likelihood of entering endogamous or exogamous marriage. A favorable sex ratio increases the risk of endogamous marriage, but this coefficient is not statistically significant either. In contrast, among women, belonging to a larger group implied an increased risk of endogamy as well as a lower risk of exogamy. Also, there is a statistically significant association between a favorable sex ratio for immigrant women and the chances of

marrying a co-ethnic man. Whereas distinguishing between men and women is not of a particular importance when it comes to the propensity for endogamy across immigrant groups, such is not the case when comparing the propensity to intermarry. Men from the EU25 countries are characterized by the highest likelihood of marrying a native spouse, and the difference is particularly pronounced when a comparison is made with men from Ecuador or Eastern Europe. This result is again in accordance with our expectations bearing in mind the type of shortage in the local marriage market for native (highly-educated) women. In contrast, when looking at immigrant women, and after controlling for observables, several groups show a higher likelihood of intermarriage with native men than the EU25 migrants; this is especially the case with women from Colombia, Romania and other non-EU Europe.

(Table 3 about here)

5.2. Natives' marital choices

Tables 4 and 5 display the results of the multivariate analysis for natives' marital choices in Spain, for men and women respectively. In the case of native men, results in the table clearly indicate a decreasing probability of intermarriage as their educational level increases, regardless of the specific origin of the immigrant partners with only one exception: marriages between Spanish-born men and EU25 women, for which the probability of intermarriage is higher than an endogamous marriage if the native man has higher education. A similar pattern is observed with regard to the occupational status, with non-skilled and manual native workers and unemployed native men being the most likely to intermarriage with any immigrant group but EU25 women, instead of marrying endogamously. Finally, the set of indicators devoted to explore the role of homogamy versus potential exchanges in intermarriages between native Spanish men and immigrant women do not support the idea this type of intermarriages are more likely if the immigrant woman can compensate the lack of /lower socio-economic status in Spain being more educated than their native husbands. In fact, a husband more educated than his wife is clearly associated with a higher probability of intermarriage with immigrant women from any of the non-privileged immigrant groups (Moroccans, Romanians, Ecuadorians and Colombians), than endogamous couples (base outcome). An alternative exchange might occur with younger age on behalf of the immigrant woman, even if the husband is not only native but also more educated than her. The

results in Table 4 support this possibility only for intermarriages with both Moroccan and Romanian women but clearly not for intermarriages with women from EU25 or Colombia.

(Table 4 about here)

In the case of native women, results in Table 5 suggest a more diverse intermarriage dynamics than in the case of their male counterparts. First of all, the probability of intermarriage is increasing with the native partners' education only if the immigrant spouse is from EU25 or the Rest of Europe, excluding Romania. In contrast, the probability of intermarriage with Moroccan, Romanian and Ecuadorian men increases with lower educational level of the native wife; while education of the native woman seems to be irrelevant in predicting intermarriage with Colombian men. In the case of native women, their occupational status also show a less clear effect on intermarriage probabilities: this variable plays no role in explaining intermarriage with Romanian and Ecuadorian men; in contrast, native women are more likely to marry an EU25 man than another Spanish born if they are highly-skilled, and precisely the opposite when intermarriage happens with Moroccan, Colombian and Rest of Europe men. Again, as in the men's case, intermarriage with Moroccans and Romanians is most likely when the native woman is more educated than them, which clearly contradicts again the most simplistic interpretation of the status exchange approach. In contrast, intermarriage with Colombian, EU25 and Rest of Europe men, is more likely than endogamous marriages when those immigrant men are more educated than the Spanish-born wife. Interestingly, the role of age differential is much clearer and stronger in this case than among native men-immigrant women marriages: an age differential against the woman (woman older than man) appears systematically associated with higher probability of intermarriage with any immigrant group compared to endogamous marriages, with only one exception: immigrants from EU25. In other words, Spanish native women are the ones who seem to be exchanging their higher educational, occupational or social status, by younger age among their immigrant husbands.

(Table 5 about here)

6. Summary and Conclusions

This is the first study on intermarriages in Spain that combines a longitudinal perspective for explaining immigrants' choices with a cross-sectional approach in examining natives' intermarriage choices within a similar period of time (right before the immigration inflows peaked in 2008). Applying event-history analysis to life-history data from the National Immigrant Survey 2007, the analysis showed the following. First, even after controlling for multiple socio-demographic and immigration-specific variables, as well as marriage market constraints indicators, we observed significant differences among immigrant groups in the likelihood of marrying within and outside of their own groups. Immigrants from EU25 countries had lower probability of endogamous marriages and higher probability of exogamous ones, but this pattern was much clearer among men than women. In fact, a strongly gendered pattern in the intermarriage dynamic has been clearly revealed beyond gender differences across origin groups. First of all, educational level appeared irrelevant in explaining the intermarriage propensity of immigrant women, while higher education clearly increased the propensity to intermarriage with native women among immigrant men. Secondly, age at migration was again a non-significant predictor of intermarriage for immigrant women, while the likelihood of intermarriage tended to decrease as the immigrant man's ages. And thirdly, indicators for immigrants' marriage market constraints, which have been added to the analyses of union formation among immigrants for the first time in Spain to our knowledge, revealed to be important only for women but non-significant for men.

As a matter of fact, the role of marriage market structure has been considered a crucial driver of both immigrants' and natives' marital intermarriage decisions in this paper. By identifying and measuring the main imbalances in both the male and female immigrant and native marriage markets, we were able to formulate relatively precise expectations regarding the role that the status homogamy and the status exchange approaches might be playing in the intermarriage landscape in Spain. And the empirical analysis developed for male and female natives' choices largely supported them. First of all, the status exchange hypotheses systematically fail to explain propensity to intermarriage of Spanish natives when the exchange had to operate to high(er) educational and/or occupational level on behalf the immigrant partner. However, some nuances could be introduced if exchange was allowed for other traits like younger age of the immigrant partners, especially immigrant men.

The analyses presented here are, of course, no without limitations, most of which are related to the type of data available. First of all, there is no dataset in Spain that allows to jointly analyze the marital choices of immigrants and natives; in addition, the data utilized for natives' choices are only cross-sectional and have only a limited number of explanatory variables available that do not include, for instance, the length of stay or the language fluency of the immigrant partner for the case of intermarriages. Moreover, the no inclusion of marriages celebrated abroad and of cohabiting couples might bias some of the obtained results in directions difficult to advance, especially because mixed couples are more likely to be unmarried than endogamous couples are. In the case of the data utilized for studying immigrants' choices, the limited size of the sample for analysis prevented a proper exam of different dynamics across origin groups by running separated regression models for each of them.

References

Adsera, A., & Ferrer, A. (2014). Immigrants and Demography: Marriage, Divorce, and Fertility. IZA Discussion Paper, No. 7982.

Becker, G. S. (1973). A Theory of Marriage: Part I. *The Journal of Political Economy* 81, 813-846.

Becker, G. S. (1974). A Theory of Marriage: Part II. *The Journal of Political Economy* 82, 11-26.

Blau, P. M., Blum, T. C., & Schwartz, J. E. (1982). Heterogeneity and intermarriage. *American Sociological* Review, 47, 45-62.

Castles, S., de Haas, H., & Miller, M. J. (2014). *The age of migration: International population movements in the modern world*. London: Palgrave Macmillan

Cebolla Boado, H. & Requena, M. (2009). "Los inmigrantes marroquíes en España" in D. Sven Reher and M. Requena (Ed.), *Las múltiples caras de la inmigración en España*, Ariel, pp. 251-288.

Chiswick, B. R., & Houseworth, C. (2011). Ethnic intermarriage among immigrants: Human capital and assortative mating. *Review of Economics of the Household*, 9(2), 149-180.

Coleman, D. A. (1994). Trends in fertility and intermarriage among immigrant populations in Western Europe as measures of integration. *Journal of Biosocial Science*, 26(01), 107-136.

Cortina, C., Bueno, X. & Castro, T. (2010). ¿Modelos familiares de aquí o de allá? Pautas de cohabitación entre las mujeres latinoamericanas en España. *América Latina Hoy*, 55, 61-74.

Coviello, V., & Boggess, M. (2004). Cumulative incidence estimation in the presence of competing risks. *Stata Journal*, *4*, 103-112.

del Rey Poveda, A., & de Vilhena, D. V. (2014). Marrying after arriving: The role of individuals' networks for immigrant choice of partner's origin. *Advances in Life Course Research*, *19*, 28-39.

Dribe, M., & Lundh, C. (2008). Intermarriage and immigrant integration in Sweden an exploratory analysis. *Acta Sociologica*, *51*(4), 329-354.

Dribe, M., & Lundh, C. (2011). Cultural dissimilarity and intermarriage. A longitudinal study of immigrants in Sweden 1990–20051. *International Migration Review*, 45(2), 297-324.

England, P. & McClintock, E. A. (2009), The Gendered Double Standard of Aging in US Marriage Markets. *Population and Development Review*, *35*, 797–816

Esteve, A., & Cortina, C. (2009). Changes in educational assortative mating in contemporary Spain. *Demographic Research*, *14*, 405-428.

Esteve, A., & Bueno, X. (2012). Marrying after migration: Assortative mating among Moroccans in Spain. *Genus*, 68(1).

Glowsky, D. (2007). Why do German Men Marry Women from Less Developed Countries? An Analysis of Transnational Partner Search Based on the German Socio-Economic Panel. SOEP Papers on Multidisciplinary Panel Data Research, 61.

González-Ferrer, A. (2006). Who do immigrants marry? Partner choice among single immigrants in Germany. *European Sociological Review*, 22(2), 171-185.

Hamel, C., Pailhé, A., & Santelli, E. (2013). *Rencontrer son conjoint dans un espace multiculturel et international* (Documents de travail No. 189). Paris: INED.

Hendrickx, J., Lammers, J., & Ultee, W. (1991). Religious assortative marriage in the Netherlands, 1938-1983. *Review of Religious Research*, 123-145.

Hwang, S-S. et al. (1997). Structural and Assimilationist Explanations of Asian American Intermarriage", *Journal of Marriage and the Family 59*, 758-772.

Jacobson, C. K., & Heaton, T. B. (2008). Comparative patterns of interracial marriage: Structural opportunities, third-party factors, and temporal change in immigrant societies. *Journal of Comparative Family Studies*, 129-148.

Kalmijn, M. (1998). Intermarriage and homogamy: Causes, patterns, trends. *Annual Review of Sociology*, 24, 395-421.

Kalmijn, M., Liefbroer, A. C., Van Poppel, F., & Van Solinge, H. (2006). The family factor in Jewish-Gentile intermarriage: A sibling analysis of the Netherlands. *Social Forces*, *84*(3), 1347-1358.

Kalmijn, M., & Van Tubergen, F. (2006). Ethnic intermarriage in the Netherlands: Confirmations and refutations of accepted insights. *European Journal of Population/Revue Européenne De Démographie, 22*(4), 371-397.

Kantarevic, J. (2004). Interethnic Marriages and Economic Assimilation of Immigrants. IZA Discussion Paper No. 1142.

Klein, T. (2001). Intermarriages between Germans and Foreigners in Germany. *Journal of Comparative Family Studies 32*, 325-346.

Kulu, H., & González-Ferrer, A. (2014). Family dynamics among immigrants and their descendants in Europe: Current research and opportunities. *European Journal of Population*, *30*(4), 411-435.

Lanzieri, G. (2012). *Merging populations: A look at marriages with foreign-born persons in European countries* (Statistics in focus No. 29/2012). Luxembourg: Eurostat.

Lievens, J. (1998). Interethnic marriage: Bringing in the context through multilevel modelling. *European Journal of Population/Revue Européenne De Démographie*, 14(2), 117-155.

Lievens, J. (1999). Family-forming migration from Turkey and Morocco to Belgium: The demand for marriage partners from the countries of origin. *International Migration Review*, *33*(3), 717-744.

Maffioli, D., Paterno, A. & Gabrielli, G. (2014). International Married and Unmarried Unions in Italy: Criteria of Mate Selection. *International Migration*, *52*(3), 160-176.

Medrano, J. D., Cortina, C., Safranoff, A., & Castro-Martín, T. (2014). Euromarriages in Spain: Recent trends and patterns in the context of European integration. *Population, Space and Place, 20*(2), 157-176.

Meng, X. & Gregory, R. G. (2005). Intermarriage and the Economic Assimilation of Immigrants. *Journal of Labor Economics*, 23(1), 135-174.

Meng, X. & Meurs, D. (2009). Intermarriage, language, and economic assimilation process : A case study of France. *International Journal of Manpower*, 30(1/2), 127-144.

Merton, R. K. (1941). Intermarriage and the Social Structure: Fact and Theory. *Psychiatry*, *4*, 371-374.

Milaine, A. & Carmichael, J. T. (2015). The "Cougar" Phenomenon: An Examination of the Factors That Influence Age-Hypogamous Sexual Relationships Among Middle-Aged Women. *Journal of Marriage and Family*.

O'Leary, R., & Finnäs, F. (2002). Education, social integration and minority-majority group intermarriage. *Sociology*, *36*(2), 235-254.

Rosenfeldm M. J. (2005). A Critique of Exchange Theory in Mate Selection. *American Journal of Sociology*, *110* (5), 1284–1325.

Safranoff, A. (2015). Analysing gender power relationships through intermarriage in Spain. Dissertation. UPF, Barcelona.

Sánchez-Domínguez, M., De Valk, H., & Reher, D. (2011). Marriage strategies among immigrants in Spain. *Revista Internacional De Sociología*, 69(M1), 139-166.

Serett, J., & Vitali, A. (2014). Understanding intermarriage from the native's perspective: Spain and Italy compared. *Conference Presentation, Meeting of the Population Association of America, Boston, 1-3 may 2014, Paper presented at the PAA.*

Song, M. (2009). Is intermarriage a good indicator of integration? *Journal of Ethnic and Migration Studies*, *35*(2), 331-348.

Tolsma, J., Lubbers, M., & Coenders, M. (2008). Ethnic competition and opposition to ethnic intermarriage in the Netherlands: A multi-level approach. *European Sociological Review*, *24*(2), 215-230.

Cortina, C., Esteve, A., & Domingo, A. (2008). Marriage patterns of the foreign-born population in a new country of immigration: The case of Spain. *International Migration Review*, *42*(4), 877-902.

Van Tubergen, F., & Maas, I. (2007). Ethnic intermarriage among immigrants in the Netherlands: An analysis of population data. *Social Science Research*, *36*(3), 1065-1086.

Appendix



Figure 1. Proportion of mixed marriages by origin, Spain 1989-2013.

Source: Marriage records, 1989-2013



Figure 2. Sex ratio of Spanish-born available spouses by age and educational level, Spain 2007.

Source: Labour Force Survey 2007.

Note: sex ratios are computed as the number of males available (single, divorced or widow) over number of females available in each group of age and education. Individuals in non-marital cohabitation are considered to be available here, which might affect the results.

Figure 3. Percentage of available partners among immigrants arrived to Spain between 1995 and 2007, by gender and origin.



Source: NIS 2007.

Table 1. Descriptives of the sample for analysis of immigrants' marital choices, by gender.

	Men	Women
Age at migration 16-20	0.23	0.20
21-25	0.32	0.30
26-30	0.25	0.22
31-35	0.11	0.12
36 or more	0.09	0.16
Years since migration (mean)	5.10	5.39
Education level primary or less	0.25	0.19
Secondary	0.57	0.57
More than secondary	0.18	0.24
Migration motivation economic	0.57	0.51
Student	0.07	0.08
Other	0.36	0.41
Had a child before migration	0.10	0.30
Has ever worked before migration	0.76	0.76
Spanish citizen	0.04	0.07
Home owner	0.17	0.20
Log of group size (mean)	12.02	12.07
Sex ratio within imm. group (mean)	0.90	0.97
Immigrant group EU25	0.13	0.11
Morocco	0.17	0.06
Romania	0.12	0.12
Ecuador	0.10	0.12
Colombia	0.07	0.16
Other Europe	0.06	0.06
Other Latin America	0.22	0.33
Other countries	0.14	0.04
Ν	1,675	1,649

Source: NIS 2007.

Table 2. Descriptives of the sample for analysis of natives' marital choices, by gender

	Men	Women
Origin of the spouses		
Both Spanish born	91.1%	94.0%
Spanish-Moroccan	0.5%	0.8%
Spanish-Rumanian	0.5%	0.1%
Spanish-Ecuadorian	0.4%	0.1%
Spanish-Colombian	0.8%	0.2%
Spanish-EU25	1.1%	1.6%
Spanish-rest of Europe	0.9%	0.3%
Spanish-other foreign born	4.7%	2.8%
Marriage order		
2nd order	17.1%	15.2%
1st order	82.9%	84.8%
Educational level		
Missing	37.2%	37.5%
Less than primary	6.6%	4.6%
Primary completed	18.0%	13.9%
Secondary completed	22.3%	21.3%
University	15.9%	22.8%
Occupation		
Missing	17.8%	17.8%
Inactive	1.3%	7.8%
Unemployed	1.0%	3.2%
Non skilled and manual workers	6.7%	5.2%
Skilled workers	49.4%	40.5%
Highly skilled workers	23.7%	25.5%
Educational composition		
Man higher education	11.4%	11.0%
Women higher education	21.1%	20.8%
Educational homogamy	67.5%	68.2%
Age composition		
Man older	52.9%	51.4%
Woman older	14.7%	15.5%
Age homogamy 0 1 years dif	32.3%	33.2%
N	174,148	168,777

Source: Spanish Marriage Register 2008.

Figure 4. Cumulative probability of the formation of endogamous marriage and intermarriage for immigrant men and women.



Source: NIS, own calculations.

	MEN		WOMEN		
	endogamy	intermarriage	endogamy	Intermarriage	
Age at migration (ref: 16-20)					
21-25	2.97***	1.93**	1.37	1.17	
26-30	3.14***	2.06**	1.17	1.08	
31-35	3.33***	1.66	0.70	0.90	
36 or more	1.76	0.67	0.32	0.73	
Years since migration	1.74***	1.47***	1.26*	1.27***	
Years since migration squared	0.94***	0.95***	0.96***	0.96***	
Education level (ref: primary or less)					
Secondary	1.53***	1.74**	0.94	1.11	
More than secondary	1.16	2.99***	0.94	1.12	
Migration motivation (ref.: economic)					
Student	0.45*	1.55	0.69	1.83***	
Other	0.79	2.06***	1.51***	1.71***	
Had a child before migration	1.75***	1.40	1.25	1.67***	
Has ever worked before migration	1.12	2.23***	1.19	1.49**	
Spanish citizen	0.52	0.82	0.70	0.58	
Home owner	1.65*	3.52***	1.87**	3.54***	
Group size (log)	0.94	0.94	1.42***	0.90**	
Sex ratio within immigrant group	1.53	0.99	1.77***	0.77	
Immigrant group (ref.: EU25)					
Morocco	3.97***	0.60	3.13***	1.33	
Romania	4.39***	0.55	3.50***	1.63*	
Ecuador	2.31**	0.11***	1.51	1.01	
Colombia	1.90*	0.84	1.61	1.65**	
Other Europe	2.62***	0.29**	4.02***	1.77**	
Other Latin America	1.47	0.94	1.83*	1.37*	
Other countries	1.63	0.71	4.03***	0.51*	
N	1,675		1,649		
Person-years	6,869		6,538		

Table 3. Discrete-time multinomial logit model, first post-migration marriage among immigrants in Spain (base outcome: staying unmarried). Odds ratio.

Source: NIS 2007, own calculations

Note: **p*<0.10; ***p*<0.05; ****p*<0.01.

	Morocco	Romania	Ecuador	Colombia	EU25	Rest	Other FB
						Europe	
Age	1,09***	1,07**	1,08***	1,11***	1,16***	1,13***	1,08***
Age Sq.	1,00***	1,00**	1,00*	1,00***	1,00***	1,00***	1,00***
University (ref.)							
Less than primary	14,68***	5,93***	4,75***	2,96***	,76**	1,23**	2,27***
Primary completed	4,13***	3,40***	2,89***	2,08***	,75**	,96	1,68***
Secondary completed	1,96***	1,51**	1,89***	1,64***	,83**	,89	1,25***
Missing	2,07***	1,65**	2,05***	1,97***	1,65***	1,59***	1,69***
Highly skilled workers (ref.)							
Inactive	1,29	1,71*	1,23	1,45**	1,08	1,16	1,40***
Unemployed	2,40**	1,61	2,26**	1,50*	1,52**	1,76**	1,73***
Non skilled & manual workers	2,11***	1,87***	1,97***	1,29*	1,10	1,14	1,44***
Skilled workers	1,31**	1,41**	1,42**	1,02	,93	1,14**	1,06
1st order (ref.)							
2nd order	3,05***	4,34***	2,67***	3,20***	1,20**	3,96***	2,06***
Missing	1,83***	1,01	,88	,58***	,32***	,44***	,49***
Educational homogamy (ref.)							
Man higher education	3,86***	2,55***	2,31***	1,54***	1,04	1,08	1,70***
Women higher education	,47***	,84*	,97	,97	1,14**	1,75***	1,06**
Age homogamy 0-1 dif (ref.)							
Man older	2,50***	3,85***	1,79***	1,54***	1,02	2,08***	1,94***
Woman older	1,46**	,71*	1,57**	2,30***	1,65***	1,45***	2,07***
N				174,148			

Table 4. Multinomial regression model, marital choices among male native-born Spaniards in 2008 (base outcome: marrying a native). Odds ratio.

Source: Marriage Register 2008.

Note: **p*<0.10; ***p*<0.05; ****p*<0.01.

	Morocco	Rumania	Ecuador	Colombia	EU25	Rest	Other FB
						Europe	
Age	,74***	,75***	,67***	,78***	1,23	1,04	,84***
Age Sq.	1,00***	1,00***	1,00***	1,00***	1,00	1,00	1,00***
University (ref.)							
Less than primary	10,52***	2,61**	4,83***	1,23	,44***	,43**	1,53***
Primary completed	3,64***	2,86***	2,55**	1,02	,47***	,67**	1,04
Secondary completed	1,35**	1,25	1,46	,94	,65***	,73*	,96
Missing	2,91***	1,33	1,71*	1,73**	1,47***	2,28***	1,51***
Highly skilled workers (ref.)							
Inactive	2,08***	1,08	1,18	1,02	,99	1,25	,93
Unemployed	2,68***	1,57	1,38	,59	,91	,90	1,05
Non skilled & manual workers	2,62***	1,63	1,26	1,73**	1,00	1,69**	1,57***
Skilled workers	1,39**	1,04	,81	1,32**	,88**	1,21**	,94
1st order (ref.)							
2nd order	3,15***	2,84***	5,38***	3,28***	,99***	1,74***	2,59***
Missing	,99	,74	,87	,39***	,22***	,19***	,38***
Educational homogamy (ref.)							
Man higher education	,80**	1,69**	1,44*	1,90***	1,24**	1,61***	1,32***
Women higher education	2,28***	2,50***	1,52*	,71**	,71***	,87	1,07**
Age homogamy 0-1 dif (ref.)							
Man older	1,05	,51**	,81	1,72***	1,45***	1,07	1,20***
Woman older	5,88***	5,49***	3,64***	5,15***	1,34***	1,98***	4,18***
N	1	1	1	168,777			1

Table 4. Multinomial regression model, marital choices among female native-born Spaniards in 2008 (base outcome: marrying a native). Odds ratio.

Source: Marriage Register 2008.

Note: **p*<0.10; ***p*<0.05; ****p*<0.01.