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Mixed-Nativity Marriages: a Marker of Immigrants' Integration or Marginality in the Host Countries? Evidence from Italy*

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August 2014

Abstract

Taking up an assimilation hypothesis, the growth of mixed-nativity marriages documented in many developed countries is often regarded as an indicator of immigrants' integration in the receiving societies. We contend that an alternative theoretical approach could enrich our understanding of the complex link between integration (or, assimilation) and intermarriages. Precisely, we build on theories on assortative mating to investigate the salience of status exchange in the formation of mixed-nativity unions in Italy. The country is a new destination of international migration characterised by particularly poor immigrants' socioeconomic integration. In line with recent empirical evidence emerging from other countries, like Australia, the US and Spain, we provide sound evidence in support of the status exchange hypothesis in Italy. Exploiting Italian Labor Force Survey data and unique register microdata on marriages, we find mixed-nativity marriages to be more likely when less educated older men marry better educated younger women, especially when the latter originate from non-Western countries. Foreign women are also more likely to marry an Italian man if they are not employed. These patterns become more similar when women possess the Italian citizenship at the moment of marriage, confirming the salience of status exchange when immigrants' integration is low.

Keywords: Assimilation, Assortative mating, Integration, Mixed-nativity marriages, Status exchange

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Introduction

Nativity and ethnicity are considered significant social boundaries in couple formation because of individuals' preferences regarding the joint consumption of household public goods that are related to ethnicity (Furtado, 2012) and because of the persistence of negative attitudes between groups (Potarca and Mills, 2012) and social group influences (Kalmijn, 1998). For these reasons, crossing ethnic and nativity boundaries in marriage is often regarded as a signal of increased integration (or, assimilation)¹ of ethnic minorities or immigrants in a society (Gordon, 1964; Alba and Nee, 2003). Taking up this *assimilation perspective*, a bulk of empirical studies interpret the rising rates of intermarriages documented across most Western countries as a signal of increased societal openness and integration (Rosenfeld, 2002; Adserà e Ferrer, 2014).

Following Song (2009), we question this straightforward interpretation, arguing that while the growth of intermarriages can be 'revealing [of] the declining social distance between the majority and certain minority groups, [it] can also entail a complex comingling of economic and social integration and marginalisation' (Song, 2009: 343). As a matter of fact, most of the extant research on mixed-nativity marriages has focused on growth rates of such unions largely neglecting the question on whether — and how — nativity affects the way in which natives and immigrant individuals are sorted into marital unions (Rosenfeld, 2002; Adserà e Ferrer, 2014). We argue that the assortative mating patterns of mixed-nativity marriages are instead critical to assess the validity of the assimilation hypothesis. Implicit in this hypothesis is the idea that mixed-nativity couples do not differ 'qualitatively' from same-nativity ones. A long research tradition on assortative mating has pointed out the salience of education homogamy (Mare, 1991; Blau, 1994; Blossfeld and Timm, 2003) and a limited age difference (Shehan et al., 1991) in couples formation.

The assimilation hypothesis implies that mixed-nativity marriages do not differ from same-nativity marriages with regard to the couple's educational and age make-up. The existence of such differences might be revealing of additional mechanisms operating behind the rise in mixed-nativity marriages in Western societies. Particularly when the

¹ As in many other studies (Song, 2009, Kulu and Gonzalez-Ferrer, 2014; Adserà and Ferrer, 2014) we use the terms integration and assimilation interchangeably although we acknowledge the different meanings of assimilation (Portes and Zhou, 1993; Alba and Nee, 2003) and we do not assume immigrants' incorporation into a host society as a straightforward process.

socioeconomic integration of immigrants is scant, a mechanism of *status exchange* (Davis, 1941; Merton, 1941) can be proposed as a theoretical account for mixed-nativity marriages. Status exchange theory builds upon the acknowledgment of the different social standing of members of different groups (in our case immigrants and natives). According to this theory, natives and foreigners perceive crossing nationality boundaries in marriage quite differently. Whereas the former might perceive it as a loss of status, or a disutility, foreigners might see it as an opportunity of material gain and improvement of their socioeconomic prospects. Consequently, we could expect that partners 'trade' some of their valuable traits so that highly-ranked members of the immigrant population exchange their status by marrying lower-ranked members of the native population. More precisely, we expect mixed-nativity couples to deviate from the standard pattern of assortative mating based on educational homogamy and a limited age difference between the spouses.

To test this hypothesis we investigate marriages between foreign women and native men in Italy. This country is a new destination of international immigration and has welcomed, starting from the early 2000s, significant and highly feminized flows of immigrants especially from Eastern European countries. Italy is also characterized by particularly harsh socioeconomic integration of immigrants, most notably women, who display rather poor economic conditions and enjoy quite precarious legal status (Sciortino, 2004; Bettio et al., 2006; Barbagli, 2007; Reyneri, 2007; Reyneri and Fullin, 2011). Nonetheless, official statistics show that marriages between native men and immigrant women have increased at unprecedented rates during the last years, shifting from less than 3% in 1996 to 7.9% of total celebrated marriages in 2012 (ISTAT, 2013). Taken together, these patterns stand in apparent contrast with the assimilation hypothesis and open the possibility to test the validity of an alternative theoretical account, such as status exchange. To this purpose we analyse both stock and flow microdata on marriages that we derived from Italian Labor Force Survey (2005-2012) and from a unique archive of the National Office of Statistics that contains exceptionally high-quality and rich information on all marriages celebrated yearly in Italy and that has never been used to study mixed-nativity marriages before. These data allow us to investigate national-origin variations in the patterns of marital sorting in terms of partners' education, age and occupational status at marriage. Importantly, we are able to study possible variations by citizenship of the bride. Finally, we look at both native men's and immigrant women's perspectives by contrasting

mixed-nativity mating patterns with the patterns observed among two-natives and two-immigrants unions.

1 Marital sorting in mixed-nativity unions: a status exchange approach

The theoretical background of this article intersects two research streams concerning marital union formation: research on intermarriage and immigrants' assimilation and research on assortative mating based on education and age.

Social scientists have long studied the determinants of exogamy, i.e. marriages that cross the ethnic lines (Kalmijn, 1998), and have recently turned their attention to mixed-nativity marriages (Adserà and Ferrer, 2014, Kulu and González-Ferrer, 2014). Beyond structural constraints, like the size and the sex ratio in the immigrant population (Kalmijn, 1998; Chiswick and Houseworth, 2011), endogamous marriages prevail over exogamous ones also because of tastes and preferences. Individuals might prefer marrying within their national group or ethnicity because returns from marriage also come from the joint consumption of ethnic-related public goods produced within the household, such as language, cuisine, religion and traditions (Furtado, 2012). Also, individuals both belonging to the majority or the minority, and especially the older (Song, 2009) and lower educated (Hainmueller and Hiscox, 2007), tend to avoid breaking the norm for endogamy (Kalmijn, 1993a; Jones and Luijkx, 1996), as they would be exposed to third-party sanctioning (Kalmijn, 1998; Potarca and Mills, 2012).

Research has also investigated the determinants of exogamy. As marriage is probably the highest degree of intimacy between individuals, and considered the above-mentioned existence of cultural barriers to exogamy, intermarriage is often regarded as the maximal marker of immigrants' assimilation (Gordon, 1964; Kalmijn, 1998). The empirical evidence on the determinants of intermarriage is supportive of this 'assimilation hypothesis' for it shows that those immigrants who are culturally and socioeconomically integrated in the host countries – e.g. those who migrated at young ages or were born in the host country, or those that are better educated and with higher language skills – are the most likely to intermarry (González-Ferrer, 2006; Dribe and Lundh, 2011; Adserà e Ferrer, 2014).

Higher educated immigrants have wider social networks, are more likely to accept the cultural norms prevailing in the host country and therefore are more interested in

similarities in education rather than similarities in ethnicity (Furtado and Theodoropoulos, 2011). The same holds true among those immigrants who migrated at younger ages and among immigrants' children. Since preferences for partners' characteristics are shaped during early adulthood and in the context where individuals grew up (Adserà and Ferrer, 2014), the criteria adopted for mate selection among well-integrated migrants should not differ much from those adopted by the natives. Therefore, both among same- nativity and mixed-nativity couples we should observe the 'standard' patterns of educational and age positive assortative mating that have been documented in a number of studies (Mare, 1991; Shehan et al., 1991; Blau, 1994; Blossfeld and Timm, 2003).

The research on the determinants of exogamy and the literature on assortative mating can be employed jointly to advance our knowledge on mixed-nativity marriages. In addition to the assimilation hypothesis, we build upon a 'status exchange' hypothesis positing that poorly integrated immigrants – e.g., first-generation migrants belonging to disadvantaged national groups and residing in contexts where long periods of residence are required to become citizens – might perceive intermarriage as a gateway to socioeconomic integration and stability in the host society. In turn, natives, especially when low educated, might consider crossing national boundaries in marriage as a loss of status. Consistently with a status exchange approach, the former might be prone to trade some of their valuable resources (like education and age) in exchange of increased stability and well-being while the latter might seek partners with valuable resources as a compensation.

The concept of status exchange in the mating process has been first introduced by Davis (1941) and Merton (1941), who, basing on the Indian Hindu caste system, proposed a theoretical account of marriage patterns between blacks (the low-caste) and whites (the high-caste) in the US. The basic idea was that blacks with low socioeconomic status would have hardly ever married whites with high socioeconomic status, but blacks with high socioeconomic status might have occasionally married whites with low socioeconomic status using their higher status to compensate the white partner for the perceived loss of social standing.

Empirical support for this hypothesis has been provided by Kalmijn (1993b), who found that black women have much higher likelihood of marrying down, with respect to education, when they marry white men rather than black men as well as white men have higher chances of marrying up when they marry black women rather than white women.

Fu (2001) enriched the picture claiming that not only the pattern of racial intermarriage pairings is different relative to endogamous marriages, but that a 'racial hierarchy' would still exist in the U.S., for the differences between exogamous and endogamous pairings only pertain to whites marrying blacks and Mexican Americans, but not Japanese Americans. Recently, Choi et al. (2012) confirmed that immigrant spouses in mixed-nativity couples are better educated than native spouses in same-nativity couples in Australia and the U.S. Empirical evidence supportive of the status exchange hypothesis in mixed-nativity marriages is available also for Spain, a new destination of international migration like Italy (Trilla et al., 2008).²

Education is not the only relevant socioeconomic characteristic that may be part of the 'bargaining' in the mating process between migrants and natives. A younger age, especially for women, may also be important as a proxy for physical attractiveness, given the prevalence of a 'double standard of aging' (Sontag, 1979), and a higher likelihood of having children. As far as men are concerned, older age can be seen as an indicator of achieved socioeconomic status and financial stability (Skopek et al., 2011b). As in the case of education, the literature suggests a normative preference for similarly aged individuals marrying each other (Shehan et al. 1991). Although there is some evidence for age unbalance in mixed-nativity marriages pointing to difference in favour of the native partner (Glowsky, 2007; Haandrikman, 2013), age differences within the couple have not received much attention in the literature on status exchange in mixed-nativity/interethnic marriages. However, individuals' age at marriage, especially on the side of the native men, might be of great relevance in the Italian setting, as we are going to discuss in the next section.

2 Status exchange in mixed-nativity marriages in the Italian setting

2.1 Mixed-nativity marriages in Italy from the perspective of foreign-born women

The need to look for theoretical approaches other than the 'assimilative' one to account for the formation of mixed-nativity marriages in Italy is motivated by two clear-cut patterns. The rise of mixed-nativity marriages in Italy concerned mainly couples made of a native

² Rosenfeld argued that several shortcomings may affect the empirical evidence posited to confirm the theory of status exchange (2005, 2010). First, the results would be partly driven by the selection of couples in their twenties, which is problematic since (black) husbands tend to be some years older than (white) women and the latter might be still in the educational system at the time of marriage. Second, the main conclusions supporting status exchange would be easily contradicted by few changes in loglinear models' specification and assumptions. These aspects will be recalled in the methodological section of the paper.

man married with a foreign-born woman, mostly originating from poorer countries of Eastern Europe and, to a lesser extent, of Latin America (ISTAT, 2013). In 2012, eight out of ten mixed-nativity marriages were made of an Italian man and a foreign woman. The first ten nationalities of the brides involved in these marriages were Romania (17.4%), Ukraine (10.9%), Brazil (7.2%), Russia (6.3%), Poland (5.3%), Albania (4.7%), Moldova (4.6%), Morocco (3.3%), Peru (2.5%) and Ecuador (2.3%).

Such a gender and national-origin composition is largely a consequence of the huge migration inflows, especially from Eastern European countries. Romania (21.2%), Albania (10.6%), Ukraine (4.4%), Moldova (2.9%) and Poland (2.4%) are the first five foreign European countries represented in the Italian population in 2011 and altogether increased from less than 30% of the total foreign population in Italy in 2004 to more than 40% in 2011. Apart from Albania, women are largely over-represented within all the mentioned national minorities.

The feminization of migration inflows from the Eastern bloc has to be attributed to migration chains which fostered the specialisation of Eastern European countries as 'sender' of workers in the household services' sector – a feature which is common for some Southern American countries such as Ecuador, Peru and Brazil as well (Sciortino, 2004; Bettio et al., 2006; Barbagli, 2007; Reyneri and Fullin, 2011). Migrant women working in the household services' sector experience a high likelihood to hold irregular status and are often employed in low-pay occupations within the underground economy (*ibidem*).

This just sketched profile of migration inflows in Italy suggests that there could be specific advantages for immigrant women in marrying an Italian man and that some national groups, most notably Eastern European women, have highest potential returns from this mating. The latter are often in unstable socioeconomic conditions and their high educational attainment provides them with the cultural resources to go beyond social norms on ethnic endogamy, better relational skills – including higher language proficiency levels – and chances to exploit mixed-nativity marriages as potential means of upward social mobility (Kalmijn, 1998; Furtado, 2012).

The possibility to obtain Italian/EU citizenship is crucial within the hypothesised status exchange mechanism underlying mixed-nativity marriages, i.e. to explain why high-educated immigrant women might accept to marry less educated older Italian men. Even if migrants manage to arrive legally to Italy, they often fall back to an irregular status due to

the difficulties in finding a stable job. Irregular status heavily compromises the likelihood of obtaining the eligibility for naturalisation, because the Italian nationality law requires 10 years of uninterrupted residence for non-EU migrants (Kosic and Triandafyllidou, 2003; Reyneri, 2007).

2.2 Mixed-nativity marriages from the perspective of Italian men

Despite most of the advantages in intermarriage would seem a prerogative of the foreign women who manage to settle down in the host country (Serret, 2011), a precise segment of the Italian male population, as defined by education and age, might have strong propensity towards exogamous marriages too. It can be argued that immigrant women represent a sort of 'secondary' marriage market for low-educated Italian men who find it increasingly difficult to marry an Italian woman. This would be the result of three social processes common to all Western countries: a) high-educated women have reached and then significantly outnumbered high-educated men (Di Prete and Buchmann, 2006; for Italy, Pisati, 2002); b) the increasing prevalence over time of educational homogamy at higher levels of education (Blossfeld and Timm, 2003; Schwartz and Mare, 2005; for Italy, Bernardi, 2002); c) the existence of gendered propensities to educationally heterogamous marriages, and more precisely the fact that whereas men accept down-marriage, women do not. As a consequence, the age at marriage of native men when looking at mixed-nativity unions tend to be higher than in same-nativity marriages (ISTAT, 2013).

Especially in a male-breadwinner setting like the Italian one, women seem willing to conform to social norms identifying men as the 'primary earners', i.e. they might still prefer men at least as educated as they are, even if they have gained high levels of economic independence (Bernardi, 2002; Blossfeld and Timm, 2003). More generally, Skopek et al. (2011a) found that women, differently from men, are highly reluctant to contact men who are less educated even on an online dating platform, suggesting that women put more value in establishing a joint lifestyle and sharing cultural interests.

2.3 Research hypotheses

Based on the theoretical framework outlined in previous pages, it is possible to summarize our hypotheses as follows:

H1a: *the chance of a native man to be married with a foreign rather than a native woman is highest among those couples where the wife is more educated than the husband, especially when the husband is low-educated and the wife is high-educated;*

H1b: *Specularly, the chance of a foreign woman to be married with a native man rather than a foreign man is highest among those couples where the wife is more educated than the husband, especially when the wife is high-educated and the husband is low-educated*

H2: *hypotheses H1a and H1b hold true mostly when the husband got married at older ages.*

H3: *hypotheses H1a and H1b apply only to mixed-nativity marriages involving women originating from poorer countries and facing higher socioeconomic instability in the country (i.e., women born in Eastern European and, to a lesser extent, Latin American countries);*

3 Data and methods

We use pooled data from the Italian Labour Force Survey (ILFS) from the years 2005 until 2012. These data allow us to combine key information on all household components and therefore to analyse how couples in Italy are assorted according to education, immigrant status, national origin and age at marriage.

Our main interest centers around a precise type of couple made of an Italian-native husband (defined as having Italian citizenship and being born in Italy) and a foreign-born wife. We restrict our analyses to individuals aged between 25 and 54. Differently from many of the works cited in the review of the literature, we do not consider all possible combinations of gender and national groups because mixed-nativity marriages involving a native woman and foreign-born man and marriages between foreigners of different nationalities are very rare in Italy.

We focus on unions based on marriage as in our theoretical framework marriage is crucial in the social exchange between partners because through marriage foreigners can acquire the Italian/EU citizenship.³

³ Moreover, we are forced to exclude cohabitations because we do not have information on the year when the cohabitation started and this is a key information in our analytical approach. We acknowledge that this choice might imply some bias because among mixed-nativity couples cohabitation occurs more frequently than among same-nativity couples. In order to check for the magnitude of the potential bias we replicated the analyses including cohabitations, without the information about the age when the union started, and found that the main results are robust.

We use place of birth instead of citizenship as main identification criterion for women because marriage with an Italian man is by large the main gateway to Italian nationality for foreign-born women in Italy. Since ILFS data do not contain any information regarding the reason for citizenship acquisition nor the year when citizenship was acquired, it was not possible to isolate foreign-born women who acquired the Italian citizenship because of marriage from those who acquired the citizenship after a long period of residence. Nonetheless, we carry out specific tests for the role played by citizenship at the time of marriage by exploiting register data on marriages celebrated yearly in Italy. These analyses are presented in section 4.3.

The data employed for the analyses entail detailed information on women's country of origin, thus allowing for national-origin variations in marriage patterns. We grouped women into four groups. Eastern European and Western countries are by far the two largest groups. The former is mainly composed of Romanian, Polish, Albanian, Moldovan and Russian women, whereas Switzerland, Germany and France make altogether two-thirds of the latter group.⁴ Within the Latin American group the most represented nationalities are Brazilian, Cuban, Argentine, Venezuelan, Colombian, and Ecuadorian. Finally, we grouped all other nationalities in a residual category due to small numbers, whose results are never shown in the paper. In some analyses we merge Eastern Europeans and Latin Americans in a single group as opposed to the group of the Westerners because the former show common patterns of mixed-nativity marriages.

As far as partners' education is concerned, we break down our sample into three groups. High-educated individuals are those who have completed a tertiary degree; medium-educated are those who completed upper secondary education, and low-educated are those individuals who did not continue their education beyond lower secondary school. The availability of information on the educational attainment of both partners allows us to model the probability of mixed-nativity marriage for all possible combinations of partners' educational levels, consistently with our interpretative framework and hypotheses. For the sake of simplicity and due to small numbers, in some of the analyses we do not show all combinations but we employ a reduced measure of the educational makeup of the couple: couples in which the two partners hold the same educational level (educationally

⁴ Switzerland, Germany and France have been the most common destinations of Italian out-migration in the second half of the 20th century, therefore a relevant fraction of women in our sample that were born in Western countries might represent "return migration" (Del Boca and Venturini, 2005).

homogamous couples); couples in which the wife has less education than the husband; couples in which the wife has higher education than the husband.

Regarding age at marriage, the ILFS provides information on the year when the marriage was celebrated. Unfortunately, individuals' age is available only in 5-year classes. Therefore, husbands' and wives' age at marriage variables are approximated with a margin of error of ± 2.5 years. Marriage register data used in section 4.3 allow us to overcome this limitation.

Our analytical approach takes up on a two-way perspective to account for potential gender variation in the propensity to enter a mixed-nativity marriage made of an Italian man and a foreign-born woman. First, we assess Italian men's likelihood of marrying a foreign-born woman relative to a native-Italian one and, second, we assess foreign-born women's likelihood of marrying an Italian man relative to a man of their own national group. Our first set of analyses (section 4.1, see Table 1 for detailed sample sizes) assesses the probability of mixed-nativity marriage by educational level of both spouses and nationality group of the wife. In section 4.2, models are augmented with three-way interactions between both partners' educational attainment and age at marriage of the husband, net of that of the wife.

Our empirical analyses are based on binomial and multinomial logistic regression models rather than loglinear models, as commonly done in the literature on status exchange (Kalmijn, 1993b; Fu, 2001; Choi et al., 2012). The described two-way perspective allows to study in detail whether mixed-nativity marriages deviate from same-nativity ones in terms of educational and age patterns, avoiding the risk of choosing an inadequate model specification within the setting of loglinear models (Rosenfeld, 2005, 2010).⁵ For instance, we might find Italian men to be more likely married with a non-Western woman, rather than an Italian one, when he is old and low-educated and she is high-educated. However, this could not be due to status exchange rather to the fact that age preferences and educational assortative mating work differently across national groups (*ibidem*). By focusing also on the perspective of foreign-born women we can control whether the latter tend to marry down and accept a wide age-gap even when they select a man from their own national group.

⁵ In addition, loglinear models do not allow the inclusion of continuous variables such as the age at marriage.

Results are presented in the form of log-odds and predicted probabilities. We opt for the former measure in the main analyses on educational assortative mating because we are interested in modeling relative risks rather than conditional probabilities. Results of models including interaction terms between the educational sorting of the couple and husband's age at marriage are based on predicted probabilities, for they are more easily understandable. All models include dummies for the year of the survey and the region of residence of the couple.

4 Results

4.1 Comparing educational sorting in same- and mixed-nativity marriages

The top panel of Figure 1 shows log-odds and 90% confidence intervals obtained from a multinomial logistic regression aimed at studying Italian men's likelihood of marrying a foreign woman relative to an Italian one by the educational sorting of the couple.

Overall, Figure 1 makes apparent that mixed-nativity marriages display systematic deviations relative to the standard pattern of educational assortative mating found for same-nativity ones. Results straightforwardly confirm our hypothesis H1a that mixed-nativity marriages in Italy are much more likely to happen when the wife has more education than the husband. Moreover, the highest chances of mixed-nativity marriage are found for the particular combination of a low-educated Italian man married with a high-educated immigrant woman. High-educated Italian men, who have a strong position on the native marriage market, display very low chances of being married with a foreign-born woman, regardless of her education. On the opposite, low-educated men have higher chances of being married with a foreign-born woman, but only if the latter is high-educated. This divergence from the standard pattern of educational assortative mating is especially pronounced among unions involving Eastern-European women, while marriages between Italian men and Western women are the most similar, in terms of partners' educational make-up, to those celebrated between two native-Italian partners, consistently with our H3. The same conclusions are reached when modeling mixed-nativity marriages by foreign women's perspective (bottom panel of Figure 1). Foreign-born women from Eastern Europe, and to a lesser extent women from Latin America, are more likely to enter unions with an Italian man than with a man of their own national group if they are high-educated and he is low-educated.

Two additional findings of the analyses carried out from women's perspective are worth to be underlined. First, the educational sorting of mixed-nativity marriages involving Western women is quite similar compared to marriages between both native partners, thus suggesting that status exchange is less relevant for women from this national group when marrying an Italian man. This is consistent with the idea that the lower the cultural distance and the higher the socioeconomic integration of a migrant group, the more similar are the criteria adopted by natives and migrants when selecting a partner.

A second result relates to East-European women only and points out that, beyond the interaction effects between their and their husbands' education, the likelihood of East-European women to marry an Italian man relative to a co-national man is always higher when she is high-educated compared as when she is not. This is consistent with the literature about the determinants of exogamy discussed in section 1. When the cultural distance between immigrants and natives is higher, education can be seen as a proxy for a looser dependence from the belonging group as well as for the cultural and linguistic skills needed to marry across ethnic boundaries.

One potential criticism about our results might be compositional bias (i.e., the higher frequency of mixed-nativity marriages involving a low-educated Italian man and a high-educated Eastern-European woman might be a consequence of the fact that East-European women are higher educated than Italian ones). However, we are confident that our results are not due to composition effects. First, results are shown in terms of relative risks (log-odds) for the precise reason to avoid taking into account marginal distributions. More important, if mixed-nativity unions involving East-European women are more likely to show a wide educational advantage in favor of the woman simply because East-European women are, on average, higher educated than Italian women, then we should observe positive effects of wife's education on the chances of mixed-nativity marriage independently of man's education. In fact, we found that it is mostly the specific combination of a high-educated woman married with a low-educated man that drives the formation of these unions. Finally, the same educational patterns in mixed-nativity marriages hold when we analyze these unions both in men's and women's perspective, this bringing further support to our interpretation that the educational matching that we find is a consequence of a status exchange mechanism.

4.2 Husbands' age at marriage and its interaction with spouses' education

In this section, we provide further evidence showing that mixed-nativity marriages in Italy also deviate from native-endogamous marriages when it comes to age similarity of the two spouses.

Figure 2 shows predicted probabilities of Italian men to be married with a foreign woman according to their age at marriage. We grouped Eastern-European and Latin American women due to small sample sizes and because they showed similar age patterns. As expected, the top panel of Figure 2 shows that the higher the husband's age at marriage, the stronger his propensity to marry an immigrant woman. Consistently with our hypotheses H2 and H3, this pattern is found only with regard to unions involving non-Western women and even more so among couples in which the wife has more education than the husband.⁶

Hence, the higher probability of low- and medium-educated men to marry high-educated non-Western migrant women shown in the previous figures is almost entirely due to an over-representation of those combinations among couples in which the husband got married after the age of 35. This result confirms hypothesis H2 and it is consistent with the idea that mixed-nativity marriages constitute a second-best choice for low-educated men who face difficulties in finding a partner within the native marriage market. Mixed-nativity marriages are often second ones for the Italian man (ISTAT, 2013), which is something we cannot control for with our data. However, we think that these occurrences do not alter the interpretation of our results because they confirm the idea that low-educated Italian men marry a migrant woman mostly after failed attempts to form a family with an Italian one.

The bottom panel of Figure 2 displays results of the same analyses carried out on women, therefore it shows how immigrant women's probability to marry an Italian man relates to their husbands' age at marriage. Results confirm that the older the man, the higher non-Western immigrant women's likelihood to be married with a native-Italian man, but this holds especially for couples in which the woman marries down. Women from Western countries have about 90 percent probability to be married with an Italian man and

⁶ The effect of women's age at marriage on the likelihood of exogamous marriage (not shown) is negative and statistically significant, but substantively less relevant for it does not vary across educational groups. As mentioned in the second paragraph, a wide age-gap within the couple is relevant in the context of mixed-nativity marriages in Italy not much because of men's preferences for younger women but rather because of non-Western migrants' willingness to accept marrying an older (and less educated) native man.

there are no differences in the age patterns between these mixed-nativity marriages and same-nativity ones.

4.3 The role of women's citizenship at the moment of marriage Following the theoretical arguments discussed in section 1, the empirical results presented in the last two paragraphs cast some doubts on the plausibility of the assimilation hypothesis as a one-size-fits-all explanation of mixed-nativity marriages in Italy. On the other hand, when the migrant woman originates from a Western country, a proxy for higher cultural and socioeconomic integration, deviations in the patterns of marital sorting are very limited, consistently with the assimilation hypothesis. A peculiar characteristic of women originating from Western countries is that, in most cases, they already possess the EU citizenship. To confirm our argument that deviations from the pattern of assortative mating, in the directions predicted by the status exchange theory, are less likely the higher the migrants' level of assimilation in the host country, we studied how marriages between Italian men and non-Western women differ when the latter already possessed the Italian citizenship at the moment of marriage. For these women, marriage might well be a consequence of their successful adaptation. Hence, we should not observe major deviations in the patterns of marital sorting when comparing mixed-nativity marriages in which the foreign woman was already an Italian citizen at the moment of marriage and couples made by two Italian-born individuals.

We carried out this test using register data on all marriages celebrated yearly in Italy in the period 2005-2012 and considering couples in which both partners are aged between 25 and 54.⁷ We run multinomial logistic regressions identical to those presented in the paragraph 4.1.⁸ However, we are now able to distinguish foreign women based on whether they were Italian citizens at the moment of marriage. The results of these models

⁷ Although very rich and including all marriages celebrated in Italy, register data do not allow to study marriage patterns from the perspective of foreign women since they do not contain any information concerning marriages celebrated outside the Italian territory.

⁸ Although the models are the same, it should be noticed that the analytic samples are rather different. In the ILFS data we were analysing the stock of marriages celebrated since the '90s and regardless of the place of celebration. In the following analyses we focus only on marriages which took place in the very recent years in Italy, in the period of the maximum diffusion of mixed-nativity marriages. We consider these differences as an additional test to corroborate our main arguments.

are presented in Tables 2a and 2b. In the Table 2a we present the log-odds related to each combination of partners' education and age at marriage.

The first two columns present the results concerning the chances of Italian men of being married with an Eastern European woman, with and without the Italian citizenship at the moment of marriage. Even in these data, the combination made by a low-educated husband and a high-educated wife maximizes the chances of intermarriage (the related coefficient is .685). However, not only this coefficient drops to .348 if the woman was an Italian citizen, but also the overall distances between the coefficients related to the remainder educational combinations tend to reduce dramatically. This is true even if we look at the odds of men being married with a Latin American woman rather than an Italian one: in this case the predictive power of different educational match-ups almost completely disappears when the woman was an Italian citizen. When the woman originates from a Western country, we do not see major deviations, except for the fact that the combination that maximizes the chances of this kind of mixed-nativity marriage is the one in which both partners are high-educated. Again, differences between educational combinations substantially reduce if the Western woman was Italian citizen at the moment of marriage.

Also partners' age makes much less difference when the foreign woman possessed the Italian citizen at the moment of marriage. For instance, the positive, non-linear effect of men's age at marriage on the chances of being married with a Latin American or a Western woman virtually disappears. The same holds true when considering the negative, non-linear effect of women's age at marriage on the chances of Italian men being married with an Eastern-European woman.

To sum up, mixed-nativity marriages between two Italian citizens are much more similar in terms of marital sorting to same-nativity ones, compared to mixed-nativity marriages in which the foreign woman is non-citizen. This can be seen very clearly evaluating the overall predictive power of both partners' education and age: The Pseudo-R² is about 3% in the model including only citizen women, while it reaches 10% when only foreign women without citizenship are considered.

Register data offer the possibility to model also partners' labour market characteristics at the moment of marriage. Table 2b shows the results of the educational variable and a variable concerning the labour market situation of the spouses.⁹

Results suggest that a non-citizen foreign woman has very strong incentives to marry an Italian man when she is not employed: this is far from surprising given the discussion presented in paragraph 2.1. But if the foreign woman already possesses the Italian citizenship, the discriminating role of her employment condition becomes much weaker: the negative effects associated with women's employment decrease by about 50% in the case of the odds of being married with a Latin American and an Eastern European woman rather than an Italian one; they disappear almost completely when comparing couples made by Western and native women.

Finally, it is interesting to notice that the patterns of the effects of partners' education are not substantially altered when including the labour market variable. These results point to a direct role of education, beyond the role of economic resources, as a valuable trait taken into account by the partners in the mating process.

Summary and discussion

In many theoretical and empirical studies, the growth of mixed-nativity marriages is presented as a result of the successful integration (or, assimilation) of immigrants into the receiving societies (Song, 2009; Adserà and Ferrer, 2014). In this paper, we argued that a proper assessment of the assimilation hypothesis would benefit if theories on intermarriage were complemented by theories on assortative mating. More precisely, as the assimilation hypothesis implicitly assumes that mixed-nativity marriages do not differ from same-nativity ones in terms of educational and age matching, empirical works are needed to ascertain the extent to which this implicit hypothesis holds true. Unfortunately, studies that combine theories on intermarriage and assortative mating to provide such an assessment are rather scarce.

Our paper aimed at contributing to the literature by focusing on mixed-nativity marriages made of a foreign woman and a native man in Italy. Particularly, we aimed to assessing to what extent mixed-nativity marriages could be better understood through the

⁹ Given the need to come up with a parsimonious variable, the one we chose crosses the information concerning whether the wife is employed or not and the kind of profession held by the husband: "low" for manual workers and unemployed, "medium" for small self-employers and white collars, "high" for professionals and entrepreneurs.

lenses of an assimilation perspective rather than being more usefully accounted for by a status exchange mechanism. Our results point to the salience of status exchange as a theoretical account of the recent rise of mixed-nativity marriages in Italy. Importantly, this result is in line with recent empirical evidence coming from other Western countries, like Australia, the US (Choi et al., 2012) and Spain (Trilla et al., 2008).

We detected substantial deviations from the 'standard' pattern of positive assortative mating based on educational homogamy and a limited age difference between spouses for marriages with East-European and a Latin-American women. Within this type of mixed-nativity unions, less educated older Italian men and more educated immigrant women are largely over-represented as compared to same-nativity marriages. Deviations from positive assortative mating are stronger if the immigrant woman does not possess Italian citizenship and if she does not have an occupation at the moment of marriage. Consistently with the literature about the determinants of intermarriage, high-educated women from non-Western countries have the highest chances to marry exogamously, as compared to their less educated counterparts, and they accept to marry down for they foresee material gains such as the acquisition of the Italian/EU citizenship. In turn, the propensity of low-educated Italian men to exogamous marriage might be a consequence of a crowding-out mechanism in the native marriage market. On the other hand, and consistently with the assimilation theory, we found that when immigrant women are well integrated in the society (i.e., those born in Western countries or those that possessed the Italian citizenship before marriage), the criteria for mate selection adopted by partners involved in mixed-nativity marriages do not differ much from those prevalent among native couples.

Although we consider the deviations from the patterns of marital sorting prevailing within the native population as a crucial indicator that non-Western immigrants' adaptation play a limited role to understand the rise of mixed-nativity marriages in Italy, any attempt to establish generative mechanisms of these empirical regularities can only be seen as tentative. The status exchange theory endows us with clear predictions that we were able to corroborate empirically, but it is impossible, at least with our data, to understand the precise mechanisms responsible for the observed patterns. More precisely, mixed-nativity marriages might be the result of the convergence of different 'structural' forces operating upon individuals who had few available options in front of them and did not carry out any conscious process of 'bargaining' of valuable partner's characteristics. For example, 'local

marriage markets' (Lichter et al., 1999) might play a pivotal role in mating processes. High-educated Eastern European migrants working in the low-skilled segment of the labour market might not have chances to actually choose between low- and high-educated native men. Their highly precarious socioeconomic integration, coupled with the high feminization of the immigrant flows, could leave as only options for those women either to remain single or to marry a low-status Italian man. On the side of men, if our argument concerning the crowding-out from the 'primary' marriage market really applies, there might be very limited room for older Italian men to select foreign women based on preferences concerning valuable traits such as high education and younger age. It should be underlined that the identification of these (or alternative) possible scenarios would not invalidate a theoretical account based on status exchange; rather, they would enrich our knowledge about the specific micro-mechanisms through which it takes place.

As far as the role of the citizenship, our final exercise cannot be considered an attempt to estimate the causal effect of the citizenship on immigrants' propensity of mixed-nativity marriages. Women who were Italian citizens before marriage are 'positively' selected, in terms of cultural and economic resources, which is precisely the reason why we used the possession of Italian citizenship as a proxy for women's cultural and economic integration. Further research is needed to test whether the prospect of accessing the EU/Italian citizenship works as an incentive for non-Western migrants to marry exogamously, possibly exploiting 'natural experiments' like the EU enlargements of the 2000s.

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Table 1 Distribution of mixed-nativity couples by national group

Italian men		East-European women		Latin American women		Western Women	
With an Italian woman	144,698	With an Eastern European man	5,250	With a Latin American man	601	With a Western man	352
With an Eastern European woman	1,364	With an Italian man	1,364	With an Italian man	1,070	With an Italian man	4,408
With a Latin American woman	1,070	Total	6,614	Total	1,671	Total	4,760
With a Western woman	4,408						
Other countries	515						
Total	152,055						

Source: Own elaborations based on the Italian Labor Force Survey (2005-2012)

Tabel 2a Relative risk (log-odds) of mixed-nativity marriage by age and educational sorting of the couple estimated via multinomial logistic regressions (individuals aged 25-54, years 2005-2012).

	M1	M2	M1	M2	M1	M2
	<i>W-No Italian citizen</i>	<i>W-Italian citizen</i>	<i>W-No Italian citizen</i>	<i>W-Italian citizen</i>	<i>W-No Italian citizen</i>	<i>W-Italian citizen</i>
Partners' educational Makeup	Eastern Europe		Latin America		Western	
Wlow-Hlow (ref.)	-	-	-	-	-	-
Wlow-Huppsec	-.029 (.021)	.123 (.085)	.207 (.029)	.342 (.063)	-.205 (.066)	.108 (.032)
Wlow-Htertiary	-.230 (.045)	.312 (.150)	-.119 (.065)	.334 (.122)	.112 (.115)	.100 (.064)
Wuppsec-Hlow	-.162 (.016)	-.029 (.067)	-.342 (.025)	-.010 (.053)	-.037 (.046)	-.061 (.025)
Wuppsec-Huppsec	-.739 (.014)	-.246 (.054)	-.706 (.021)	.001 (.041)	.167 (.035)	-.213 (.019)
Wuppsec-Htertiary	-.942 (.028)	-.064 (.087)	-.756 (.040)	.099 (.066)	.312 (.052)	-.198 (.035)
Wtertiary-Hlow	.685 (.020)	.348 (.096)	.549 (.031)	.309 (.078)	.673 (.058)	-.074 (.044)
Wtertiary-Huppsec	-.404 (.019)	-.330 (.078)	-.504 (.029)	.099 (.066)	.574 (.040)	-.374 (.029)
Wtertiary-Htertiary	-1.018 (.020)	-.551 (.072)	-1.072 (.031)	-.122 (.050)	.859 (.035)	-.404 (.025)
Husband's age						
Hage	.263 (.008)	.147 (.031)	.185 (.012)	.026 (.023)	.096 (.018)	-.015 (.012)
Hage ²	-.001 (.000)	-.000 (.000)	-.001 (.000)	.000 (.000)	-.001 (.000)	.000 (.000)
Wife's age						
Wage	-.243 (.008)	-.076 (.031)	-.107 (.012)	-.116 (.023)	.110 (.019)	.181 (.013)
Wage ²	.002 (.000)	.000 (.000)	.001 (.000)	.002 (.000)	-.001 (.000)	-.002 (.000)

M1: **Pseudo-R2: .10**, Log-likelihood: -380843.39, N=1323871

M2: **Pseudo-R2: .03**, Log-likelihood: -171228.13, N=1268443

W/H indicate wives' and husbands' characteristics. All models include dummies for the region and the year of marriage (2005-2012). Results for category "rest" not shown. In bold coefficients significant at p<001

Source: Own elaborations based on ISTAT register data on marriages celebrated yearly in Italy (2005-2012)

Table 2b Relative risk (log-odds) of mixed-nativity marriage by educational and labour market sorting of the couple estimated via multinomial logistic regressions (individuals aged 25-54, years 2005-2012).

	M1	M2	M1	M2	M1	M2
	<i>W-No Italian citizen</i>	<i>W-Italian citizen</i>	<i>W-No Italian citizen</i>	<i>W-Italian citizen</i>	<i>W-No Italian citizen</i>	<i>W-Italian citizen</i>
	Eastern Europe		Latin America		Western	
Partners' educational makeup						
Wlow-Hlow (ref.)	-	-	-	-	-	-
Wlow-Huppsec	.134 (.022)	.193 (.087)	.375 (.030)	.399 (.065)	-.112 (.068)	.131 (.033)
Wlow-Htertiary	.034 (.046)	.421 (.153)	.161 (.067)	.400 (.123)	.186 (.116)	.131 (.065)
Wuppsec-Hlow	.077 (.016)	.106 (.068)	-.029 (.026)	.115 (.054)	.144 (.047)	-.052 (.026)
Wuppsec-Huppsec	-.343 (.015)	-.043 (.059)	-.225 (.023)	.172 (.045)	.375 (.038)	-.161 (.021)
Wuppsec-Htertiary	-.560 (.030)	.111 (.093)	-.332 (.042)	.224 (.071)	.427 (.056)	-.144 (.037)
Wtertiary-Hlow	1.005 (.021)	.529 (.098)	.945 (.032)	.469 (.079)	.880 (.059)	-.055 (.045)
Wtertiary-Huppsec	.064 (.020)	-.081 (.083)	.050 (.031)	.290 (.058)	.799 (.044)	-.310 (.030)
Wtertiary-Htertiary	-.427 (.022)	-.268 (.080)	-.388 (.034)	.107 (.057)	1.067 (.040)	-.321 (.028)
Partners' labour market makeup						
Wnoemp-HLow (ref.)	-	-	-	-	-	-
Wnoemp-Hmedium	.128 (.017)	.170 (.075)	.254 (.025)	.143 (.059)	-.068 (.048)	.033 (.029)
Wnoemp-Hhigh	.006 (.024)	.099 (.102)	.134 (.034)	.299 (.075)	.121 (.058)	.157 (.041)
Wemp-Hlow	-1.048 (.016)	-.560 (.067)	-1.378 (.024)	-.559 (.051)	-.929 (.042)	.039 (.024)
Wemp-Hmedium	-1.331 (.016)	-.713 (.066)	-1.657 (.025)	-.622 (.050)	-.847 (.039)	-.121 (.024)
Wemp-Hhigh	-1.390 (.021)	-.629 (.077)	-1.708 (.032)	-.582 (.058)	-.633 (.043)	-.115 (.029)
M1: Pseudo-R2: .13 , Log-likelihood: -367714.21, N=1323871						
M2: Pseudo-R2: .03 , Log-likelihood: -170812.06, N=1268443						
All models include the same covariates included in Tab. 2a. Results for category "rest" not shown. In bold coefficients significant at p<001						

Source: Own elaborations based on ISTAT register data on marriages celebrated yearly in Italy (2005-2012)

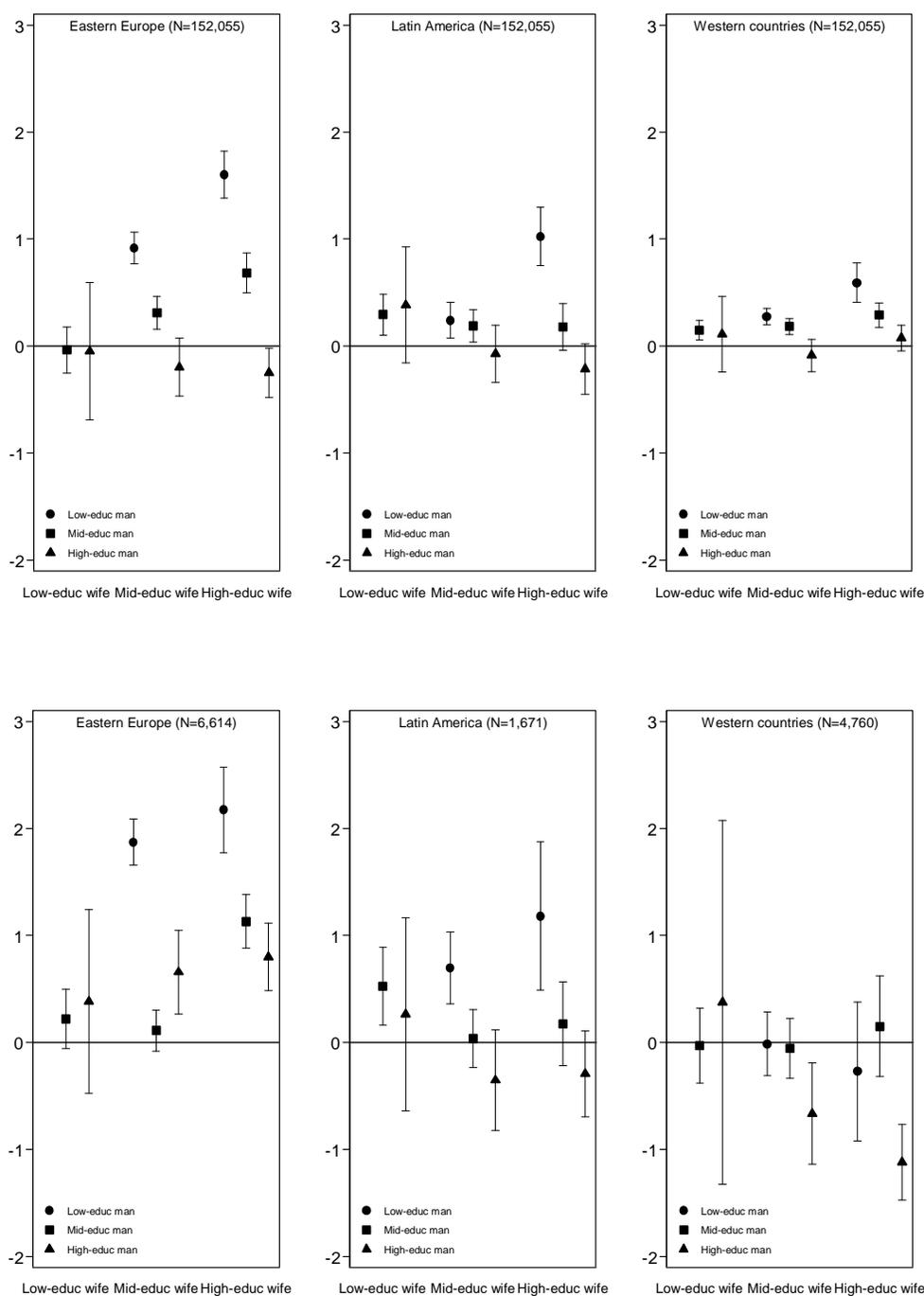


Figure 1 Relative risk of mixed-nativity marriage by educational sorting of the couple (individuals aged 25-54 and resident in Italy, years 2005-2012).

Note: Top panel refers to Italian men marrying a foreign-born woman. Bottom panel refers to foreign-born women marrying an Italian man. Log-odds (symbols) and 90 percent confidence intervals estimated via multinomial (top panel) and binomial (bottom panel) logistic regressions. Models control for husband's and wife's age at marriage, their quadratic forms and interactions, region of residence of the couple and year fixed effects. Sample sizes are in parentheses. *Source:* Own elaboration based on the Italian Labor Force Survey (2005-2012).

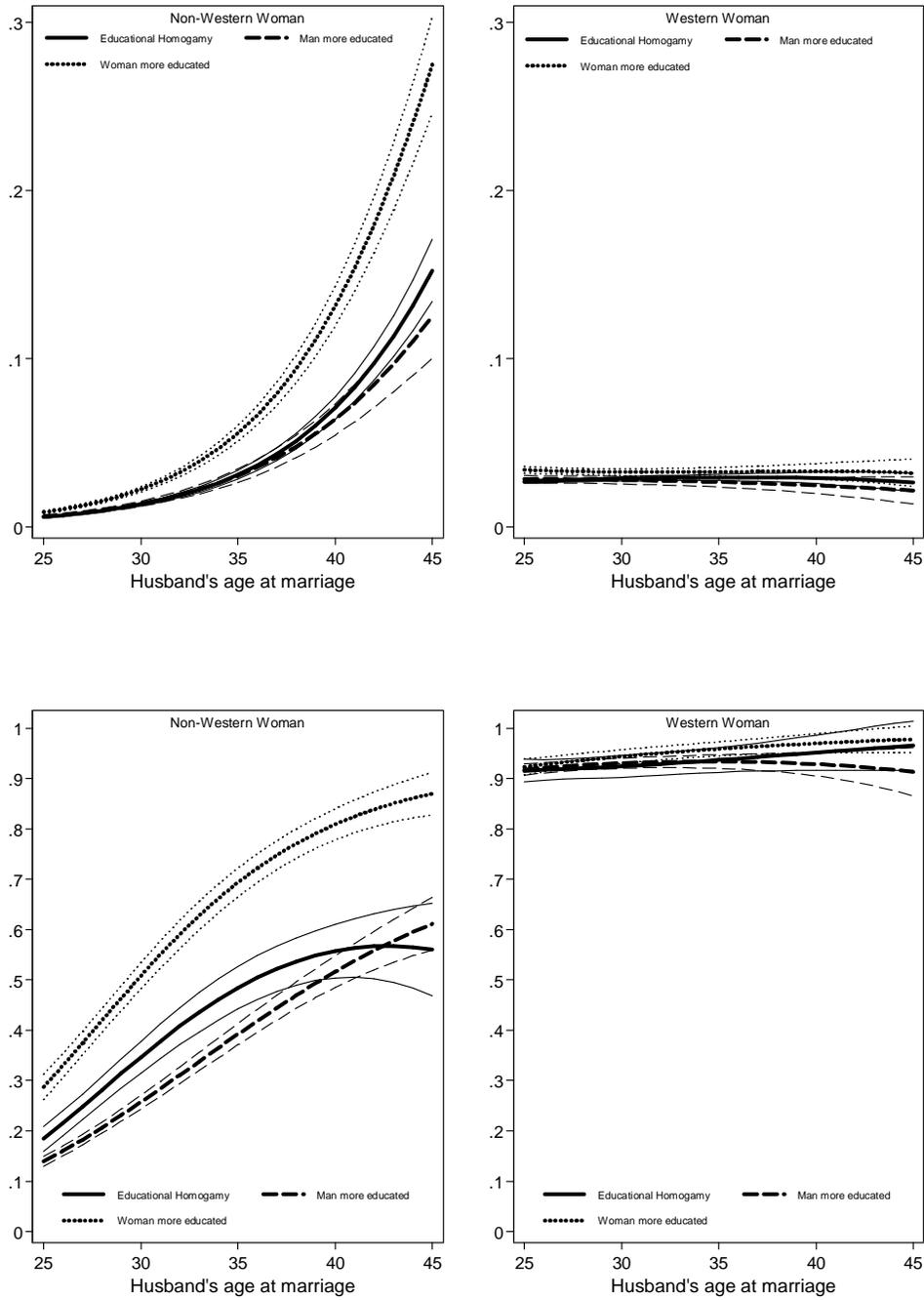


Figure 2 Probability of mixed-nativity marriage by husband's age at marriage and educational sorting of the couple (individuals aged 25-54 and resident in Italy, years 2005-2012).

Note: Top panel refers to Italian men marrying a foreign-born woman. Bottom panel refers to foreign-born women marrying an Italian man. Predicted probabilities and 90 percent confidence intervals computed after multinomial (top panel) and binomial (bottom panel) logistic regression models. Models include wife's age at marriage and its quadratic form, region of residence of the couple and year fixed effects.

Source: Own elaboration based on the Italian Labor Force Survey (2005-2012).