Artículo de revista:

Corti, Giulia et al. (2024). "Partners' Age Difference and Marital Dissolution in Italy. A Cohort Comparison". *Comparative Population Studies*, 49: 337-370 (ISSN 1869-8999). :https://doi.org/10.12765/CPoS-2024-14.

Comparative Population Studies
Vol. 49 (2024): 337-370 (Date of release: 07.10.2024)

Partners' Age Difference and Marital Dissolution in Italy. A Cohort Comparison*

Giulia Corti, Daniela Bellani, Antonella Guarneri, Francesca Rinesi

Abstract: Among the factors related to marital disruption, age assortative mating (who marries whom in terms of age) has received less attention than others. In this study, we study the association between partners' age difference and marital disruption in Italy, a late-comer country in divorce legislation and highly conservative in its culture and institutions. We also show how this association varies across marriage cohorts. We employ data from "Families, social subjects and life cycle" (FSS), collected in 2016 by the Italian National Institute of Statistics (Istat). We analyse micro-level retrospective information on first-marriage histories between the 1970s and the 1990s through an event-history approach. Results show that age hypogamous couples (where the woman is older than the man) have a higher likelihood of marital disruption compared to couples where the wife is the same age or younger than her husband. However, this higher risk reduces among the youngest cohorts. We discuss the possible drivers of this change in light of cultural changes that occurred in recent decades.

Keywords: Age assortative mating · Marital disruption · Italy · Age hypogamy

1 Introduction

Patterns of union formation have been historically dominated by hypergamy (*England et al.* 2016), a condition in which women generally partner with men who are potential good providers (for example, men with a high educational level), and men favour younger, domestic-oriented, and "beautiful" women (*Esteve et al.* 2012). Recently, relevant changes in the traditional patterns of union formation have taken place. For instance, considering partners' educational attainment, educational hypergamy has been substituted by a growing number of couples in which the female partner is more educated than the man (see *Esteve et al.* 2012; *Van Bavel et al.* 2018).

* This article belongs to a special issue on "Changes in Educational Homogamy and Its Consequences".

URL: www.comparativepopulationstudies.de
DOI: https://doi.org/10.12765/CPoS-2024-14
URN: urn:nbn:de:bib-cpos-2024-14en5

This pattern has been observed not only in terms of education but also considering differences in partners' ages. Literature refers to age homogamous couples when partners are of similar age, age hypergamy when the man is older, and age hypogamy when the woman is older. Age hypergamy has been – and still is – the dominant age pairing in Western societies; however, age homogamous couples have been increasing since the end of the 19th century, whereas age hypogamous couples remain a small but substantial and potentially increasing phenomenon.

Empirical studies on the evolution of partners' age differences have mostly focused on its determinants (*Van de Putte et al.* 2009), but the potentially far-reaching consequences of age assortative mating patterns are an important issue to examine. Our interest focuses on one specific outcome, namely marital disruption.[1] Couple instability impacts several spheres of human life, having legal, emotional, social, health and financial consequences (*Braver/Lamb* 2013). As such, the analysis of the relationship between partners' age differences and marital instability deserves attention.

It has been found that age heterogamous couples are more likely to separate and/or divorce than homogamous couples (*Frimmel et al.* 2013; *Lee/McKinnish* 2018; *Bernardi/Martinez-Pastor* 2011; *Chan/Halpin* 2002), with age hypogamous couples being those with higher risk of dissolution. However, these studies suffer from at least two relevant limitations. First, in most studies partners' age difference is treated as one of the numerous covariates in modelling divorce risks – without justifying the adjustment set (see *Kohler et al.* 2024). As such, it is difficult to disentangle the effect of partners' age gap from others – such as partners' educational assortative mating. A second limitation is the static nature of the analyses, which do not account for changes in the assortative matching process. According to some scholars, partner choice processes have changed in recent decades, with individual qualities rather than social roles gaining ground in defining mate selection (*Goldscheider et al.* 2009). This might be accompanied by potential consequences for the relationship related to partners' age difference and marital stability.

In this paper, we overcome these two limitations by studying trends in the relationship between partners' age difference and marital disruption. We do this for a country, Italy, which is often depicted as particularly traditional in terms of gender norms compared to other European countries. As such, the Italian case represents an interesting case due to the low level of secularisation and the historically low incidence of divorce that characterises Italian society (*Rosina/Fraboni* 2004; *De-Rose et al.* 2008).

As for trends in age assortative mating, during the 20th century Italy followed a similar pattern to other Western countries (*Bonarini* 2017; *Giuliani* 2019). A rise both in age homogamy – the largely prevalent category – and in age hypogamy has taken place, counterbalanced by a decrease in age hypergamy, although to a lesser extent than in other countries. As for marital disruption, several studies have focused on its

[1] We use legal separation as the moment that marks the break-up of the marriage (see section 3.1, Data and sample selection).

macro *(Castiglioni/Dalla-Zuanna* 2008; *Guarneri et al.* 2021) and micro determinants (*De-Rose* 1992; *De-Rose/Di Cesare* 2007; *Salvini/Vignoli* 2011), but to the best of our knowledge no studies for Italy have addressed the relationship between age assortative mating and marital dissolution. Nevertheless, the country represents an intriguing case for its strong traditional familyhood (*Esping-Andersen* 1990: 27). Italy was one of the late-comers among Western countries in the legislation on divorce, which was established in 1970, and at least up to the 2010s remained one of the Western countries with the most stringent legislation (*Iversen et al.* 2005). Moreover, the incidence of marital disruption has remained low compared to other European countries. This has been interpreted in the light of the dominance of the Roman Catholic Church and the strong influence of family on individual choices, together with a low level of social protection in case of separation or divorce (*Reher* 1998). Also, Italian institutions and culture are still highly conservative in terms of gender roles and gender equity (*Impicciatore/Billari* 2012). However, some studies have shown that separation and divorce have become more common, with less educated individuals reducing the initial gap with higher educated (e.g. *Salvini/Vignoli* 2011).

The rest of the paper is structured as follows. First, we present a review of the literature and the research hypotheses. Then, we present our empirical results and, finally, we discuss our results.

2 Literature review and research hypotheses

2.1 Age assortative mating: determinants and trends

Several disciplines take an interest in how partners' characteristics combine, given the crucial consequences in several domains, from evolutionary processes (e.g., *Buss* 1989) to long-term trends in economic inequality (e.g., *Breen/Salazar* 2011). Assortative mating has been studied considering an array of characteristics such as educational level (*Blossfeld/Timm* 2003; *Uunk* 2024), personality traits (*Glicksohn/ Golan* 2001), religion (*McClendon* 2016), ethnicity (*Qian/Lichter* 2007), income (*Greenwood et al.* 2014).

Among the others, the study of age assortative mating has been recognised as a relevant dimension to investigate not only as a resource/constraint in the marriage market (*Atkinson/Glass* 1985; *Banks/Arnold* 2001; *Van Poppel et al.* 2001; *Qian/Lichter* 2007; *England/McClintock* 2009; *Van de Putte et al.* 2009; *Bozon* 1990; *De-Rose* 1992; *Blossfeld/Timm* 2003; *De-Rose/Di Cesare* 2003) but also because of its impact on union formation dynamics and relationship quality (e.g. *Kalmijn* 1991).

Broadly speaking, the term age homogamy refers to couples in which partners are of similar age, age hypergamy when the man is older, and age hypogamy when the woman is older, with year-thresholds varying among studies and contexts. The thresholds to define each category are not univocal in the literature. Their identification depends on theoretical reasons and contexts analysed. As a direct result, trends of the prevalence of hypergamy, hypogamy and homogamy in partners' age difference change according to the operational definition applied.

As for observed trends, men are on average 3-4 years older than their female partners. Biological explanations emphasise men's preferences for younger, fertile women and women's preferences for older and better-resourced men (e.g. *Buss* 1989). Others consider preferences for older men in heterosexual couples to be the consequence of desires that are socially constructed and reinforced (*Presser* 1975). The conventional status-exchange approach tends to predict a prevalence of age hypergamy between heterosexual couples; age can be a trait that individuals are willing to trade in the partner market. For women, young age is often linked to physical attractiveness to the extent to which standards of beauty that favour youthful looks are spread in society (*England/McClintock* 2009). Accordingly, women might be willing to trade their youth and physical attractiveness with potential male partners' resources in terms of education, income, or social status, which are likely to increase over the life course – and thus with age.[2] According to this approach, age hypogamy should be less desirable compared to other couple age pairings as older women are considered to be less attractive (*Öberg/Tornstam* 1999).

The dominance of age hypergamous couples is not universal, and there is substantial variation in contexts and times (e.g. *Buss et al.* 1990). In Western countries, partners' ages are getting more and more similar as a result of different social factors. The process of educational expansion has resulted in individuals spending more time with peers of the same age, thus structurally favouring not only educational homogamy but also age similarity (*Bernardi* 2003). Moreover, the weakening of the economic foundation of marriage makes individuals less oriented toward an instrumental marriage. This in turn favours partnerships based on feelings of companionship and shared interests, which are more common between partners of similar age (*Skopek et al.* 2011; *Van de Putte et al.* 2009). The similarity in age can facilitate a common lifestyle and reduce conflicts in daily interaction routines because partners of the same birth cohorts are more likely to share life experiences, tastes, and values (*Skopek et al.* 2011). Age similarity can also be associated with a higher level of equality and intimacy within the couple (*Van de Putte et al.* 2009). Moreover, literature on dating apps shows that couples who met online, where age is an explicit criterion that individuals may set in their search, are closer in age to those who met offline. This could be considered evidence of age preferences towards assortativity (*Potarca* 2020; *Thomas* 2020).

Scholars have recently shown that the changing patterns of age differences have additionally led to an increase of age hypogamous couples. This has been related to two social phenomena that are underway. The first is the diffusion of values such as self-expression and self-determination. The weakening of traditional norms related to family and intimate relationships results in the individualisation of partners' search criteria, with an increase in non-normative patterns of age difference (*Kolk* 2015). On the other hand, women are achieving higher levels of education, which represents a signal of women's career opportunities and potential earnings. Thus, they could

[2] As highlighted in studies of the partner search (*Skopek et al.* 2011; *Corti/Scherer* 2021), there are continuous adaptation and interaction between preferences and constraints over the life course.

exchange marketable resources with others they might lack, such as youth. This perspective is also known as the empowerment hypothesis (*Giuliani* 2020) and can be interpreted as a nontraditional version of the classical status exchange theory.[3]

2.2 A societal perspective on partners' age difference and marital disruption: new patterns and research hypotheses

Recently, there has been an interest in the link between age assortative mating and couple stability and marital dissolution. The age pairing of partners is often considered a proxy of their similarity and an indicator of the potential quality of the relationship (*Van de Putte et al.* 2009), which in turn might influence its stability.

Broadly speaking, it has been found that age heterogamous couples are more likely to separate and/or divorce than age homogamous couples (*Frimmel et al.* 2013; *Lee/McKinnish* 2018; *Bernardi/Martinez-Pastor* 2011; *Chan/Halpin* 2002), thus supporting the idea that age similarity enhances relationship quality.

There has been less attention to the potential differences in the likelihood of union disruption between age hypergamous and hypogamous couples. A perspective focused on the mere difference between partners' ages would suggest no difference, but some theoretical perspectives expect that there may be.

The first refers to the Home Economics framework. According to this perspective, a basic rationale for marriage lies in the maximisation of partners' utility, which is grounded in task specialisation and skill complementarities (*Becker* 1991). In traditional societies, men tend to prefer younger women, who supposedly are less labour-market oriented, whereas women tend to prefer older men, who potentially have a higher income. To the extent to which marriage returns increase with higher spousal skill complementarities and task specialisation (*Parsons* 1949), age hypergamy should represent the best insurance against marital disruption.

The second – and similar – perspective is called status exchange. As in the case of Home Economics, this approach predicts a higher stability premium for age hypergamous couples.[4] It suggests that marriage is an exchange of valuable resources between a male and a female for utility maximisation. An exchange of a wife's young age with a husband's social status is likely to rely on an exchange between a female's housework/reproductive ability and a male's work ability.

There are theoretical frameworks that deal with the consequences of age hypogamy for marital dissolution. One is the so-called double standard of ageism, which predicts that age hypogamous couples are more at risk of union disruption (e.g. *Cain* 1993). According to this framework, women's beauty standards are strictly related to their age. Therefore, young women are more successful in the marriage market.

---

3 Higher levels of female education might not necessarily imply greater levels of singlehood for women (*Bellani et al.* 2017). Researchers have reported a greater diffusion of hypogamous couples – also in terms of age (*Coles/Francesconi* 2011).

4 While in principle gender-neutral (as in the case of Home Economics), empirical applications of the theory usually assume a gendered nature of the exchange.

Considering the popularity of labels such as milfs, cougars, and the like (*Alarie* 2019), this wording attached to mature women suggests the presence of social stigma toward age hypogamous couples. Scholars showed that age hypogamous couples are often considered less normatively acceptable and promising than hypergamous ones (*Banks/Arnold* 2001; *Derenski/Landsburg* 1981; *Cowan* 1984; *Hartnett et al.* 1981) and thus they can be socially sanctioned in various ways. Individuals in unconventional pairings might react out of fear of being stigmatised (*Proulx et al.* 2006; *Warren* 1996; *Alarie* 2018), and thus feel less committed to the romantic relationship, making it less stable. One could argue, however, that members of unconventional couples might feel more engaged in their relationship because they are less inclined to embrace normative principles or as a reaction to such stigma (*Trimarchi/Van Bavel* 2017). This might lead to strengthening partners' linkages, decreasing the risk of union dissolution (*Lehmiller/Agnew* 2008).

Some studies have highlighted a higher risk of marital instability for age hypogamous couples, although with some differences across national contexts: in the Netherlands men are more likely to initiate a divorce when they are the younger partner (*Kalmijn/Poortman* 2006). A similar conclusion is valid for Canada (*Gentleman/Park* 1994), Turkey (*Caarls/de Valk* 2018), and Australia (*Kippen et al.* 2013). To the best of our knowledge, the contribution of *England* and colleagues (2016) on the US case is the only one that does not find such a pattern. In the light of such theoretical reasonings and empirical evidence, we formulate our first hypothesis:

Hypothesis 1 – Age hypogamous couples have a higher likelihood of marital disruption than age homogamous or age hypergamous couples.

There are reasons to believe that the gradient linking partners' age gap and divorce has changed over time. The higher participation of women in the labour market has empowered their economic autonomy. Thus, marriage is increasingly losing its traditional economic foundation, no longer representing a stage of life through which women gain independence from their parents or an obstacle to slip out of an unhappy relationship (see *Oppenheimer* 1997 for a discussion). This might undermine the traditional advantage of age hypergamous couples in terms of stability premium. Moreover, women's increasing economic attractivity might weaken the traditional status-exchange mechanism in which the man trades his economic position as women and men are becoming more similar in this regard across cohorts. As a consequence, female empowerment might enable women to exchange their socio-economic status for men's valuable resources that are not strictly market-related – for instance with respect to male participation in unpaid work arrangements (*Bellani et al.* 2017) or physical attractiveness (*McClintock* 2014). Thus, according to the gender-neutral version of exchange theory, women might also strive to form an (age) hypogamous union.

Moreover, changes in cultural norms might play a role. Scholars identify shifts towards post-materialistic values and individualistic attitudes linked to the post-modernist variant of the Second Demographic Transition theory as direct causes of the rise of non-traditional family forms (*Lesthaeghe* 1983, 1995, 2014; *Van de Kaa* 2001). As a result, the context around marriage has notably changed as well,

as attitudes towards divorce and non-marital living have become more forgiving (*Cherlin* 1992; *Thornton* 1989). Recently, *Kolk* (2015) observed an association between the diffusion of post-modernist values and the growing spread of less conventional couples in terms of age pairing. Norms regarding sexuality and intimate relationships have changed as well (*Kamen* 2000; *Montemurro/Siefken* 2014; *Bellani/Esping-Andersen* 2020), with women nowadays experiencing more social and sexual freedom compared to older generations. This might undermine the social sanctions attached to age hypogamous couples, which have been traditionally stigmatised as deviant from the normative age pairing. Thus, the risk of divorce attached to age hypogamous couples might decrease across birth cohorts (e.g. *Lee/McKinnish* 2018). All these considerations lead us to formulate our second research hypothesis:

Hypothesis 2 – The positive effect of age hypogamy on marital disruption decreases across cohorts

3 Empirical strategy

3.1 Data and sample selection

We use data from the "Families, social subjects and life cycle" (FSS) survey, which was conducted in 2016 by the Italian National Institute of Statistics (ISTAT) by interviewing nearly 25,000 individuals aged 18 years and over representing the resident population in households in Italy. The survey provides a wide range of information on family structure, demographic and social characteristics of the households and life course trajectories. It includes retrospective questions on union formation and disruption. The respondent also provides some relevant information on other (present or former) cohabiting members of the household.

We consider legal separation rather than divorce as the moment that marks the break-up of the marriage. This choice has been adopted in previous studies on marital instability in Italy (*Castiglioni/Della Zuanna* 2008; *Impicciatore/Billari* 2012; *Guarneri et al.* 2021). Moreover, legal separation is a prerequisite to obtain a divorce, and not all separations end in divorce; for these reasons, we consider legal separation a more accurate indicator of marital disruption than divorce.

Our analysis is restricted to first marriages. From an operational point of view, relevant information about higher-order marriages among remarried individuals and cohabitations that did not end in marriage is missing.[5] Furthermore, second marriages are still extremely scarce in Italy, especially among older cohorts.

[5] The missing information is the age and the educational level of higher-order partners in case of separation.

We first select individuals who were married from December 1970, when divorce was introduced.[6] We select individuals aged between 18 and 40 at the time of the marriage, because after that age the likelihood of getting married substantially falls in our data, especially for older cohorts. Respondents aged 69 or older at the time of the interview are completely right censored to avoid possible bias due to differential mortality. Moreover, we follow marital history for a time window of 15 years, or at the last available interview (due to separation or death).

These restrictions produced a final sample of 7,938 respondents who had been married at least once at the time of the interview (and are at risk of experiencing marital disruption), of which about 9.1 percent (N=720) subsequently ended in dissolution.

3.2 Variables

Event: a marriage was considered to have ended if the respondent stated it in the questionnaire and if the date of separation or divorce was provided. In case of divorce, the respondent should provide not only the date of divorce but also the date of legal separation (our target variable). Unfortunately, this was not always the case. The date of legal separation was missing for 272 cases (27.6 percent) among first marriages that ended in divorce. To make our analysis more robust, we imputed the missing values on the date of legal separation, with the cold-deck method (*Andridge/Little* 2010). We used information from another record (referred to as the "donor") of a different source, to impute the date of legal separation when not available in the FSS survey. In our case, the auxiliary data source used was administrative data of all the divorces that occurred in Italy in the period of analysis, in which the date of legal separation was provided. The donor is randomly selected from a pool of marriages with the same set of characteristics (year of marriage, year of divorce). Within records that share the same year of marriage and divorce, the closest unit to the missing value for wedding rite (civil or religious ceremony), geographical area, and year of birth of each spouse is used as the donor of the year of legal separation. After imputation, both the distances between marriage and separation and between separation and divorce are consistent with those calculated from administrative register data.

Explanatory variable: our main explanatory variable is the age gap between partners. Age is recorded for all individuals present in the de facto household at the time of the interview. Consequently, the age of the ex-spouse is not collected directly. We measured the age difference between spouses (and ex-spouses) using information on the exact age of both partners at the time of the engagement or at the beginning of the relationship. This information was in fact available both for intact first marriages at the time of the interview and for those no longer in existence.

[6] Legal separation was possible before that moment, but it was very rare (*Saresella* 2017). Only after the introduction of divorce did legal separation become more widespread as it was the necessary step in marriage dissolution.

As for the definition of age assortative mating, we coded the categories as: (1) hypergamy (when the husband is older by more than 4 years); (2) hypogamy (when the wife is older than the husband); (3) homogamy (when the spouses are the same age or the husband is older by between one and four years).

The reasoning behind this operationalisation is twofold. First, according to New Home Economics and the status exchange perspectives, we made the difference between men and women great enough to capture the exchange dimension (men's higher earnings for women's age). Moreover, in our sample the median age difference between partners is around 3 years (*Dribe/Nystedt* 2017). Second, in a traditional and gender unequal country such as Italy age hypogamy represents a highly unconventional couple pairing (*Giuliani* 2019); for this reason, we decided to consider age hypogamous all couples in which the woman is older, regardless of the age gap. We are aware that results might differ according to the thresholds selected. To test the robustness of our results, we performed sensitivity analyses using alternative age differences criteria (see section 4.3 and Appendix, Table A2a and A2b).

Moderating variables. The marriage cohort represents a moderator in our analysis. We identify three marriage cohorts covering marriages that occurred between 1970-1979, 1980-1989, and 1990-1999. The reduced number of events (N=720) prevents us from further enriching the analysis. Still, this categorisation allows us to compare groups of couples entering into a marriage in different historical periods. The first group includes partners who married in the 1970s, a decade characterised by scarcity of marital disruption and strong support for couple specialisation. At the same time, they represent the vanguards having the right to divorce. The second refers to the cohort of marriages that occurred during the 1980s, a decade when the opportunity costs of entering a conventional breadwinning-homemaker marriage for women decreased (due to the higher participation of women in the labour market). The last category refers to the 1990s when a sharp decrease in support for gender traditionalism occurred (*Knight/Brinton* 2017) as well as a significant increase in gender parity within couples (e.g. *Guiso/Zaccaria* 2023). Selecting three marriage cohorts (and not more) allows us to parsimoniously study the historical trend of the partners' age gradient of divorce in Italy.

We consider other variables that previous studies have identified as explananda of age assortative mating and union disruption (see *Matysiak et al.* 2014). We include in our model as controls the level of educational attainment of the respondent coded in three categories (compulsory secondary education or less, upper secondary education, and university education). Some studies found that, for the case of Italy and the cohorts we are analysing, the level of education influences union disruption (*Härkönen/Dronkers* 2006; *Salvini/Vignoli* 2011). Moreover, as previous studies have shown, education is a crucial factor in explaining age assortativity (e.g. *Saardchom/Lemaire* 2005). In our data, we observe an association between the level of education and the propensity to marry someone younger/older. Descriptive statistics suggest that highly educated women are less likely to be in a hypergamous couple compared to their lower educated counterparts (26.62 percent versus 36.1 percent, the difference is statistically significant).

We control for the woman's age at marriage (in linear and squared form), since studies have shown that early marriages tend to be more fragile (*Impicciatore/Billari* 2012). Moreover, given the lower likelihood of younger women forming hypogamous couples, this control depurates from such influence.

We also add to our model a control for the sex of the respondent, given the potential gender bias in reporting one's and partner's age (*Adams* 1980).

As measures of the level of secularisation of the couple and the context in which they live we considered: premarital cohabitation (*Impicciatore/Billari* 2012), region of residence (*Salvini/Vignoli* 2011; *Castiglioni/Dalla Zuanna* 2008), and marriage rite (religious or not) (*De-Rose et al.* 2008; *Guarneri et al.* 2021). We also control for being Italian or not at the time of the interview.

Additionally, we introduce a categorical variable identifying the duration of the marriage (less than or equal to three years, between four and seven years, and between seven and fifteen years) As statistical tests suggest, the risk of separation appears constant within each category of duration, but they vary across such categories. We also provide robustness checks with duration in years. We omit other controls associated with marital disruption but not with partners' age gap, such as home ownership and fertility outcomes, which do not act as confounders (see *Kohler et al.* 2024 for an in-depth analysis). Our final sample is composed of 7,894 couples

3.3 Model specification

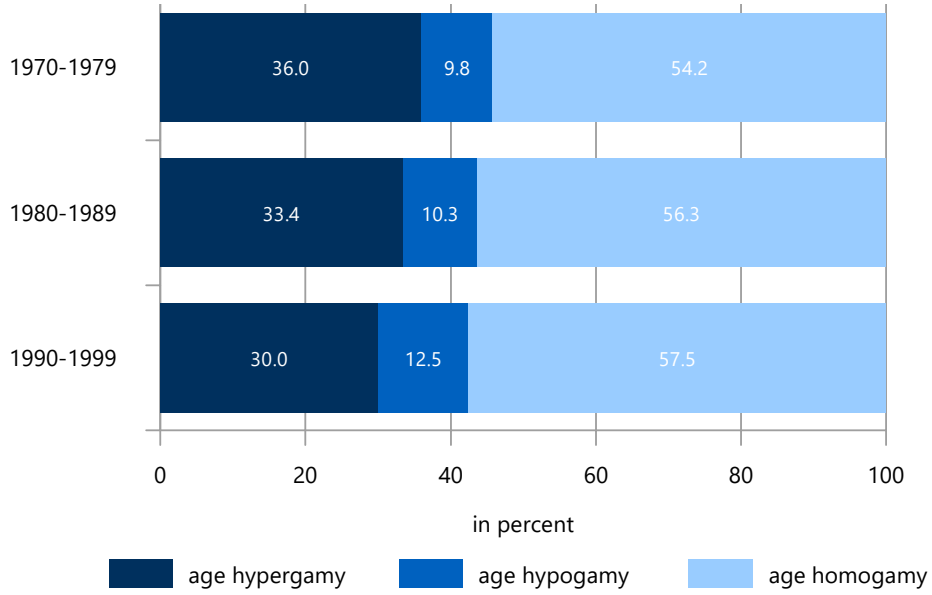
We estimate the relative risk of first marriage disruption using logistic regression in a discrete-time event history analysis setting, given that the explanatory variables are measured annually (*Allison* 1982). It allows us to account for the fact that marital separation dates are measured discretely. Completed spells are measured by the duration in years between the date of marriage and the date of legal separation. Right-censored spells are defined by the duration between the date of marriage and 15 years of marriage duration for those marriages that have not ended in a disruption or between the date of marriage and the date of the death of a spouse.

4 Results

We divide the empirical section into two parts. In the first, we will test the association between partners' age gap and the relative risk of legal separation (Hypothesis 1). We will then test whether the association has changed across marriage cohorts (Hypothesis 2).

Figure 1 shows how the distribution of partners' age gap has changed across marriage cohorts. About half of couple observations belong to the category of homogamous in all three marriage cohorts considered. The most prevalent type of heterogamous couple is represented by hypergamous couples. We observe, however, an increase in both hypogamous and homogamous couples and therefore a decrease in hypergamous couples across marriage cohorts. Among marriages

Fig. 1: Distribution of age pairings by marriage cohorts



Source: "Families, social subjects and life cycle" (*Istat* 2016). Own elaborations

taking place during the 1970s, 36 percent were hypergamous, falling to about 30 percent for the cohort of the 1990s.

In Table 1 we can see higher propensities of marital disruption between hypogamous couples (11.43 percent of marriages end with legal separation) and lower between hypergamous couples (8.93 percent). Differences in the likelihood of separation between hypogamous and hypergamous couples are statistically significant. Table 1 also presents descriptive statistics of the explanatory and control variables for all married couples cohorts considered in the analyses (see the graphical representation of Kaplan Meier survival rates in the Appendix, Fig. A1).

Table 2 shows the log-odds of our discrete-time event history models with robust standard errors at the couple level. In Model 1 (M1), we control for the age of the wife at marriage (with linear and quadratic terms), gender of the respondent, marriage cohort, whether the union started with cohabitation or not (cohabitation before marriage vs. direct marriage), and duration of the marriage. We then complement the baseline specification with a step-wise approach, by adding other controls. In Model 2 (M2) Table 2 we add to the models the following controls: region of residence, marriage ritual, Italian citizenship as well as respondent's level of education. We find that the likelihood of a break-up in both models is higher for hypogamous compared to hypergamous couples.

To ease interpretation, we present in Figure 2 the average marginal effects (AME), calculated from M2 of Table 2. We can observe that the average marginal effect related to the category of age hypogamy is positive and statistically significant. The difference in the likelihood of marital separation between hypogamous and

Tab. 1: Rate of marital disruption by sample characteristics

	% separated
Partners' age difference	
Hypergamy	8.93
Hypogamy	11.43
Homogamy	8.80
Marriage cohort	
1970-1979	5.14
1980-1989	8.99
1990-1999	12.99
Gender of the respondent	
Male	8.69
Female	9.50
Cohabitation before marriage	
No	8.05
Yes	22.60
Woman's age at marriage (mean and standard deviation)	24.26 (4.56)
Respondent's educational level	
Primary	6.89
Secondary	10.44
Tertiary	13.46
Area of residence	
North	11.46
Centre	11.84
South	5.37
Marriage ritual	
Not religious ritual	17.77
Religious ritual	8.02
Citizenship	
Italian	8.67
Foreigner	19.09
N	7,894

Source: "Families, social subjects and life cycle" (*Istat* 2016). Own elaborations.

hypergamous couples is approximately 0.020 percentage points ($p<.01$). For age homogamous couples a smaller value (and not statistically significant) is found.

In Model 3 (M3) of Table 2 we include an interaction between partners' age gap and marriage cohort. In Model 4 (M4) of Table 2 we estimate our model using yearly discrete time intervals. Finally, in Model 5 (M5) of Table 2 we control for the duration of the partnership also considering the years of cohabitation – for those partners who cohabited before the marriage.

Tab. 2: Discrete-time event history logistic regression results for marital disruption

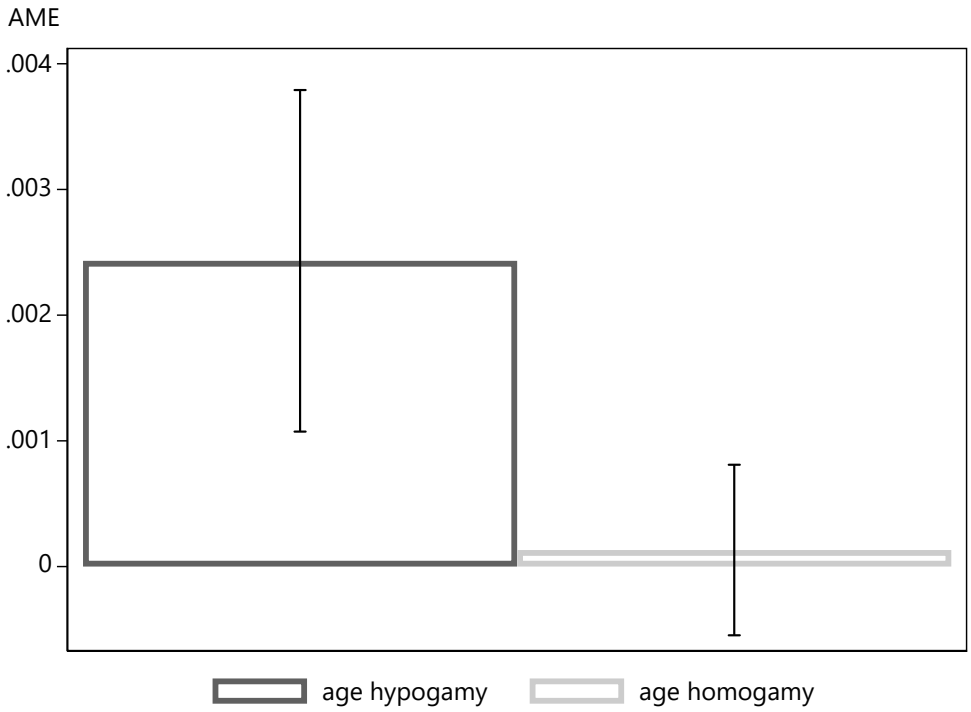
	(M1)	(M2)	(M3)	(M4)	(M5)
Husband-wife age pairing (ref: Age hypergamy)					
Age hypogamy	.323**	.362***	1.025***	.948***	.949***
	(.132)	(.133)	(.321)	(.321)	(.321)
Age homogamy	.05	.023	.343	.369	.375*
	(.086)	(.087)	(.225)	(.225)	(.225)
Marriage cohort (ref.: I cohort)					
1980-1989	.614***	.575***	.879***	.886***	.877***
	(.112)	(.113)	(.219)	(.218)	(.219)
1990-1999	.993***	.971***	1.303***	1.347***	1.354***
	(.117)	(.119)	(.224)	(.222)	(.222)
Age hypogamy*1980-1989			-.664*	-.585	-.593
			(.372)	(.372)	(.374)
Age hypogamy*1990-1999			-.861**	-.846**	-.841**
			(.368)	(.368)	(.367)
Age homogamy*1980-1989			-.375	-.332	-.339
			(.26)	(.26)	(.26)
Age homogamy*1990-1999			-.372	-.411	-.418
			(.258)	(.257)	(.257)
Constant	-4.754***	-3.002***	-2.997***	-5.816***	-4.282
	(.986)	(1.047)	(1.057)	(1.035)	(1.01)
Spells	120783	120783	120783	120783	120006
Number of clusters	7,894	7,894	7,894	7,894	7,894
Pseudo R^2	.022	.039	.039	.027	.022
Basic controls	YES	YES	YES	YES	YES
Additional controls	NO	YES	YES	NO	NO
Duration categories	YES	YES	YES	NO	NO
Duration yearly	NO	NO	NO	YES	NO
Duration categories, years of cohabitation included	NO	NO	NO	NO	YES

Note: Basic controls are duration of the marriage, pre-marital cohabitation, wife's age and its squared term, respondent's sex. Additional controls to the basic model are region of residence, marriage ritual, Italian citizenship, respondent's level of education.
Robust standard errors in parenthesis, *** p<.01, ** p<.05, * p<.1.
Source: "Families, social subjects and life cycle" (*Istat* 2016). Own elaborations.

To ease the interpretation of the results reported in Table 2, we present both AME (Fig. 3) and predicted probabilities with 95 percent confidence intervals for pairwise comparison (Fig. 4) based on M3 of Table 3.

In Figure 3, we can see that hypogamous couples married in the 1970s experienced a higher likelihood of separation compared to hypergamous couples. We observe that this is no longer the case for couples who married in the 1990s. Similar conclusions are mirrored for homogamous couples when compared to

Fig. 2: Average marginal effects of marital disruption by partners' age pairing (ref. age hypergamy). AMEs retrieved from Model 2, Table 2

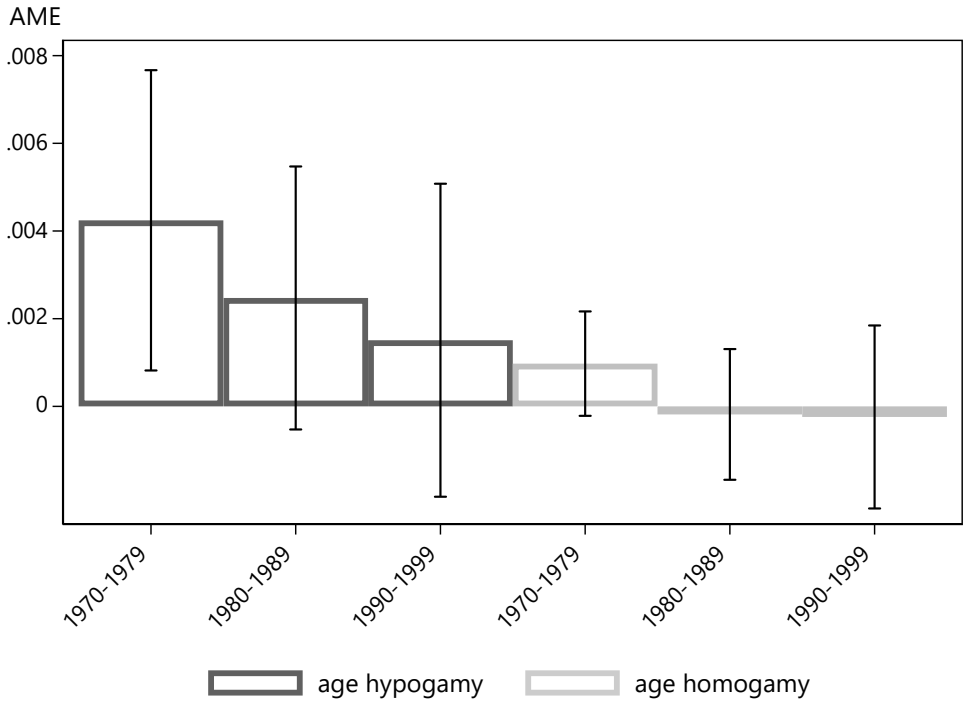


Source: "Families, social subjects and life cycle" (*Istat* 2016). Own elaborations

hypergamous couples even if statistical significance is not reached. More specifically, Figure 4 displays the predicted probability of marital disruption by marriage cohort and categories of partners' age gap. It is evident that for marriages of the 1970s the probability of marital disruption was lower across all the categories of partners' age gap, but with sharp differences between categories. The probability was about 2.5 per thousand for hypergamous couples, 5.2 per thousand for hypogamous couples, and about 3.3 per thousand for homogamous couples. In the 1990s cohort, we see an overall increase in the probability of marital disruption for all the categories of partners' age gap. We do not observe, however, any relevant difference in the probability of marital disruption between those categories. The predicted probability for hypergamous couples was about 9.0 per thousand, for hypogamous couples about 9.4 per thousand, and for homogamous couples about 8.2 per thousand. As such, any statistically significant difference in the (predicted) probability of marital disruption is found across categories of partners' age gap for the marriages that took place during the 1990s.

However, beyond comparing AMEs or predicted probabilities across models, it is essential to test whether differences across different model specifications are significant (*Mize et al.* 2019). For example, we explore whether the association

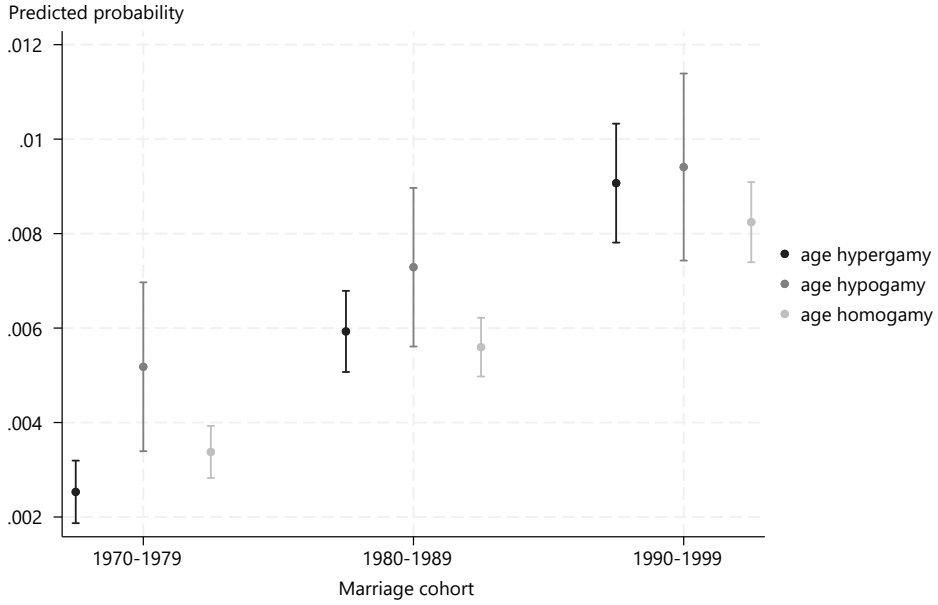
Fig. 3: Average marginal effects of marital disruption by partners' age gap and marriage cohorts (ref. age hypergamy). AMEs retrieved from Model 3, Table 2



Source: "Families, social subjects and life cycle" (*Istat* 2016). Own elaborations

between the likelihood of marital disruption and a partner's age gap and its variation across marriage cohorts is different across models. To explore whether the association between age pairings changes over cohorts we compute seemingly unrelated estimations and we calculate the Average Discrete Change (ADC) from logit specifications of Table 2, M3-M5. Employing this methodological approach, the comparison of coefficients from different models of discrete-time event history analysis is suitable. These results are reported in Table A1. This table shows the average discrete change for four models (M1-M3 Table A1). More specifically, in Panel 1 of Table A1 we report whether the coefficients of interest change their magnitude across models. Overall, we can observe that ADCs are consistent with the models we reported in the main text (M3-M5 Table 2). This means that the association between partners' age gap and divorce differs across marriage cohorts as in the main models. In Panel B of Table A1, we report comparison of models reported in the main text (M3-M5 of Table 2 that correspond to M1-M3 in Table A2). We proceed by comparing the models in pairs. We do not observe a significant reduction in the magnitude of the association of interest. Due to these results, we are more confident about the empirical findings we report.

Fig. 4: Adjusted predicted probabilities of marital disruption by partners' age gap and marriage cohorts. Retrieved from Model 3, Table 2



Source: "Families, social subjects and life cycle" (*Istat* 2016). Own elaborations

5 Robustness checks

5.1 Age thresholds

We consider more fine-grained time intervals of partners' age differences in order to stress the sensitivity of our main results.

In one robustness check, the explanatory variable takes six values, whether husband minus wife age is (1) +2 or +3 (the is the most numerous category), (2) lower than -2, (3) -2 or -1, (4) 0 or +1, (5) +4 or +5, (6) higher than 5. As reported in Appendix, Table A2a, the substantive meaning of the results reported for the main models does not change. Similar conclusions are achieved when our partners' age difference is differently operationalised, as reported in Table A2b. Subtracting the wife's age from the husband's, we identify four categories, 1) higher than 4; 2) lower than 0; 3) 0 or +1; 4) +2, +3 or +4 (Table A2b).

5.2 Partner's level of education

To further stress the robustness of results, in additional models, we consider the level of education of the partners at the time of the engagement (see *Impicciatore/ Billari* 2012) based on an earlier wave of the same survey.

It is important to note that marriage in Italy is usually considered the last step in a process of commitment that began long before. In fact, after a first phase of a "private" relationship (*Berrington et al.* 2015), couples commonly experience an engagement period characterised by an extensive phase of LATAP (living-apart-together-at-parents), a sort of LAT partnership before marriage and that makes couples socially visible (*Bernardi/Oppo* 2008). Engagement, the premise for a life-long relationship, is considered a prominent passage (partly institutionalised) through which the couple is recognised by important parts of society. In this sense, engagement in Italy signals a very high level of commitment (*Arosio* 2008). Thus, the selection of the future spouse is likely to be based on his/her characteristics at the time of the engagement. However, we must acknowledge that it might underestimate the educational attainment of individuals who become engaged at very young ages. As reported in Appendix, Table A3, despite the inclusion of control variables related to partners' educational level at engagement as well age assortative mating, we observe that these findings are consistent with those reported in the main models.[7]

5.3 Selection into marriage

To address the issue of potential biases due to selection into marriage, we simultaneously model the risk of separation and the likelihood of having married. We adopt a solution proposed by *Heckman* (1976) to tackle sample selection bias in the case of binary outcomes. The application of this method requires one or more instrumental variables that influence the probability of being married but have no direct effect on the outcome under study, i.e. the likelihood of marital separation. We estimate models with the exclusion restriction. We use as a key instrumental variable – that is included in the selection equation but not in the outcome equation – a proxy of the so-called shotgun marriage (see *Bernardi/Martínez-Pastor* 2011). The variable identifies whether or not marriage took place during the female partner's pregnancy. We observe that about 5 percent of couples' female partners have a pregnancy without being married (at least in our sample). We tested whether this variable influences the risk of marital disruption, finding that it does not. In Appendix, Table A3, regression estimates are reported. The results are substantially the same as those reported in the main models. We observe an increase in the likelihood of marriage disruption for all the categories over time (and its equalisation across categories) that is not due to sample selection into marriage.

7 We provide different specifications of partners' educational level. In M1 Table A3 we control for the educational attainment of the respondent at the moment of engagement, in M2 for the level of education of the partner, in M3 of both partners and in M4 educational assortative mating.

6 Summary and conclusions

We studied the association between partners' age differences and marital instability in Italy and its evolution across marriage cohorts using Italian FSS survey data, a particularly rich survey covering many aspects of the life cycle of individuals. We provide two main contributions to the literature. First, we apply an innovative methodological approach to overcome non-response problems using an external source. In our case, we imputed the year of separation – when missing – using administrative data of all legal separations registered in Italy relative to all marriages taking place from 1970 to 1999. Such an approach might be helpful for researchers dealing with missing data in surveys that can be reduced with the use of external data sources.

Second, we provide the first empirical investigation of trends of marital disruption according to age assortative mating pairing in Italy. We found a decreasing disadvantage for hypogamous couples in marital instability; hypogamous couples were those with the higher likelihood of marital disruption among marriages taking place in the 1970s, but they are equally as likely to divorce as other age pairings among marriage cohorts from the following decades (1980s and 1990s). Thus, our research hypotheses were confirmed. The shift in the association of age hypergamy and marital disruption appears to be consistent with those theoretical frameworks predicting a decrease in the relative stability premium for conventional couples. The reasons behind such evidence can be several and open the road for further research.

A possible explanation can be based on the Second Demographic Transition theory, which emphasises the role played by shifts in ideas and attitudes to explain the diffusion of new family patterns. These orientations include women's emancipation and self-realisation, thus favouring the idea that age hypogamy might become less rare.

Moreover, our results make the case in favour of the decreasing importance of women's traditional attributes such as physical attractiveness and reproductive value for couple stability. As such, our results might be driven by the fact that other characteristics, such as men's companionship or involvement in domestic work (*Dykstra/Poortman* 2010), are growing more valuable, partly replacing traditional elements of partners' exchange process. Thus, our empirical findings are consistent with the perspective of decreasing marital premia for hypergamous couples explained by a surge of partners' attention to equality in the private sphere and intimate relationships (e.g. *Esping-Andersen/Billari* 2015; *Mazzeo et al.* 2024). In particular, partners of homogamous and hypogamous couples might be more likely to share equally (paid and) unpaid work, increasing marital gains. In this sense, the male adaptation to new gender roles is likely to lag in hypergamous couples compared to other pairings (*Mazzeo et al.* 2024). This, in turn, might affect marital stability. And this is also supported by our empirical evidence on age assortative mating, showing a significant increase in the likelihood of divorce across marriage cohorts for age hypergamous couples.

Besides cultural changes, women's increasing economic attractiveness might play a stabilising role. As they gain places in the educational system and the labour

market, the traditional status-exchange hypothesis, in which men trade their economic position for other characteristics such as beauty and youthfulness, seems to weaken across time, leading to other dynamics that might influence both partner choice and the stability of the relationship.

Finally, selection into age hypogamous couples might have changed across time; as for other social phenomena, unconventional or counter-normative behaviours were first adopted by selected forerunners and later become more widespread in the general population. Measuring the extent to which this might have an impact on differences in the likelihood of marital disruption is a question for further research. Future studies might disentangle these relevant factors focusing on the mechanisms mentioned above.

It is worth analysing further the decreasing effect of age homogamy on marital instability. From a theoretical point of view, scholars can provide multifaceted perspectives that consider marriage patterns arising from new social forces and cultural orientations. Social scientists recently showed that in Western societies a growing number of individuals do not wish to have children (*Guzzo/Hayford* 2023). The change in family ideals might impact age assortative mating as biological differences in reproduction capacity are increasingly not seen as barriers to partnership. In the same vein, the spread of medically assisted reproduction and in-vitro procedures can be seen as instruments that can transform traditional partners' exchange in the marriage market. Moreover, in light of the increasing rates of re-partnering, a shift of the analyses on higher-order marriages (or cohabitations) appears very promising.

An additional area for further research could be a comparison of the Italian case with other countries. Italy is an interesting case study because of its traditional culture and rather unequal gender roles and ideology. Potentially, this may have made for a large effect of age hypogamy on marital dissolution, and its slow change across time. Further research should address the comparison with secularised and gender-egalitarian countries.

Acknowledgements

Daniela Bellani, Antonella Guarneri and Francesca Rinesi acknowledge the financial support provided by the Italian Ministry of University and Research, 2017 MiUR-PRIN Grant Prot. N. 2017W5B55Y ("The Great Demographic Recession," PI: Daniele Vignoli).

References

Adams, Gerald R. 1980: Social psychology of beauty: Effects of age, height, and weight on self-reported personality traits and social behavior. In: The Journal of Social Psychology 112,2: 287-293. https://doi.org/10.1080/00224545.1980.9924330

Alarie, Milaine 2019: "They're the ones chasing the cougar": Relationship formation in the context of age-hypogamous intimate relationships. In: Gender & Society 33,3: 463-485. https://doi.org/10.1177/0891243219839670

Alarie, Milaine 2018: Beyond the ‚cougar' stereotype: Women's experiences with age-hypogamous intimate relationships. Canada: McGill University.

Allison, Paul D. 1982: Discrete-time methods for the analysis of event histories. In: Sociological Methodology 13: 61-98. https://doi.org/10.2307/270718

Andridge, Rebecca R.; Little, Roderick J. 2010: A review of hot deck imputation for survey non-response. In: International Statistical Review 78,1: 40-64. https://doi.org/10.1111/j.1751-5823.2010.00103.x

Arosio, Laura 2008: Sociologia del matrimonio. Rome: Carocci.

Atkinson, Maxine P.; Glass, Becky L. 1985: Marital age heterogamy and homogamy, 1900 to 1980. In: Journal of Marriage and Family 47,3: 685-691. https://doi.org/10.2307/352269

Banks, Colette A.; Arnold, Paul 2001: Opinions towards sexual partners with a large age difference. In: Marriage & Family Review 33,4: 5-18. https://doi.org/10.1300/J002v33n04_02

Becker, Gary S. 1991: A treatise on the family: Enlarged edition. Cambridge: Harvard University Press.

Bellani, Daniela; Esping-Andersen, Gøsta; Nedoluzhko, Lesia 2017: Never partnered: A multilevel analysis of lifelong singlehood. In: Demographic Research 37: 53-100. https://doi.org/10.4054/DemRes.2017.37.4

Bellani, Daniela; Esping-Andersen, Gøsta 2020: Gendered time allocation and divorce: A longitudinal analysis of German and American couples. In: Family Relations 69,1: 207-226. https://doi.org/10.1111/fare.12405

Bernardi, Fabrizio 2003: Who marries whom in Italy? In: *Blossfeld, Hans-Peter; Timm Andreas* (Eds.): Who Marries Whom? Educational systems as marriage markets in modern societies. Dordrecht: Kluwer Academic Publishers: 113-139. https://doi.org/10.1007/978-94-007-1065-8_6

Bernardi, Fabrizio; Martínez-Pastor, Juan-Ignacio 2011: Divorce risk factors and their variations over time in Spain. In: Demographic Research 24: 771-800. https://doi.org/10.4054/DemRes.2011.24.31

Bernardi, Laura; Oppo, Anna 2008: Female-centred family configurations and fertility. In: *Widmer, Eric; Jallinoja, Riitta* (Eds.): Beyond the nuclear family. Families in a Configurational Perspective. Population, Family and Society 9. Peter Lang: 179-206.

Berrington, Ann; Perelli-Harris, Brienna; Trevena, Paulina 2015: Commitment and the changing sequence of cohabitation, childbearing, and marriage: Insights from qualitative research in the UK. In: Demographic Research 33: 327-362. https://doi.org/10.4054/DemRes.2015.33.12

Blossfeld, Hans-Peter; Timm, Andreas (Eds.) 2003: Who marries whom? Educational systems as marriage markets in modern societies. Dordrecht: Kluwer Academic Publishers. https://doi.org/10.1007/978-94-007-1065-8

Bonarini, Franco 2017: Evoluzione della nuzialità in Italia nelle generazioni. In: Popolazione e storia 18,2: 95-113.

Bozon, Michel 1990: Les femmes et l'écart d'âge entre conjoints: une domination consentie. I. Types d'union et attentes en matière d'écart d'âge. In: Population (french edition) 45,2: 327-360. https://doi.org/10.2307/1533376

Braver, Sanford L.; Lamb, Michael E. 2013: Marital dissolution. In: *Peterson, Gary W.; Bush, Kevin R.* (Eds.): Handbook of marriage and the family. Boston, MA: Springer: 487-516. https://doi.org/10.1007/978-1-4614-3987-5_21

Breen, Richard; Salazar, Leire 2011: Educational assortative mating and earnings inequality in the United States. In: American Journal of Sociology 117,3: 808-843. https://doi.org/10.1086/661778

Bumpass, Larry; Sweet, James; Castro Martin, Teresa 1990: Changing patterns of remarriage. In: Journal of Marriage and Family 52,3: 747-756. https://doi.org/10.2307/352939

Buss, David M. 1989: Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. In: Behavioral and Brain Sciences 12,1: 1-14. https://doi.org/10.1017/S0140525X00023992

Buss, David M. et al. 1990: International preferences in selecting mates: A study of 37 cultures. In: Journal of Cross-cultural Psychology 21,1: 5-47. https://doi.org/10.1177/0022022190211001

Caarls, Kim; de Valk, Helga A. G. 2018: Regional diffusion of divorce in Turkey. In: European Journal of Population 34,4: 609-636. https://doi.org/10.1007/s10680-017-9441-5

Cain, Mead 1993: Patriarchal Structure and Demographic Change. In: *Federici, Nora; Oppenheim Mason, Karen; Sogner, Sølvi* (Eds.): Women's Position and Demographic Change. Oxford: Clarendon Press: 19-41.

Castiglioni, Maria; Dalla Zuanna, Gianpiero 2008: A Marriage-Cohort Analysis of Legal Separations in Italy. In: Population (English edition) 63,1: 173-193. https://doi.org/10.1353/pop.0.0003

Chan, Tak Wing; Halpin, Brendan 2002: Union dissolution in the United Kingdom. In: International Journal of Sociology 32,4: 76-93. https://doi.org/10.1080/15579336.2002.11770260

Cherlin, Andrew J. 1992: Marriage, divorce, remarriage. Harvard University Press.

Coles, Melvyn G.; Francesconi, Marco 2011: On the emergence of toyboys: The timing of marriage with aging and uncertain careers. In: International Economic Review 52,3: 825-853. https://doi.org/10.1111/j.1468-2354.2011.00651.x

Corti, Giulia; Scherer, Stefani 2021: Mating market and dynamics of union formation. In: European Journal of Population 37: 851-876. https://doi.org/10.1007/s10680-021-09592-2

Cowan, Gloria 1984: The double standard in age-discrepant relationships. In: Sex Roles 11,1: 17-23. https://doi.org/10.1007/BF00287436

Derenski, Arlene; Landsburg, Sally B. 1981: The age taboo: Older women – younger men relationships. Boston/Toronto: Little, Brown and Company.

De-Rose, Alessandra 1992: Socio-economic factors and family size as determinants of marital dissolution in Italy. In: European Sociological Review 8,1: 71-91. https://doi.org/10.1093/oxfordjournals.esr.a036623

De-Rose, Alessandra; Di Cesare, Maria Chiara 2003: Genere e scioglimento della prima unione. In*: Pinnelli, Antonella; Racioppi, Filomena; Rettaroli, Rosella* (Eds.): Genere e demografia. Bologna: Il Mulino: 339-365.

De-Rose, Alessandra; Di Cesare, Maria Chiara 2007: Gender and first union dissolution. In: *Pinnelli, Antonella; Racioppi, Filomena; Rettaroli, Rosella* (Eds.): Genders in the Life Course. The Springer Series on Demographic Methods and Population Analysis, vol 19. Dordrecht: Springer: 167-184.

De-Rose, Alessandra; Racioppi, Filomena; Zanatta, Anna Laura 2008: Italy: Delayed adaptation of social institutions to changes in family behavior. In: Demographic Research 19: 665-704. https://doi.org/10.4054/DemRes.2008.19.19

Dykstra, Pearl A.; Poortman, Anne-Rigt 2010: Economic resources and remaining single: Trends over time. In: European Sociological Review 26,3: 277-290. https://doi.org/10.1093/esr/jcp021

Dribe, Martin; Stanfors, Maria 2017: Age homogamy and modernization: Evidence from turn-of-the-twentieth century Sweden. In: Essays in Economic & Business History 35,1: 265-289.

Dribe, Martin; Nystedt, Paul 2017: Age homogamy, gender, and earnings: Sweden 1990-2009. In: Social Forces 96,1: 239-264. https://doi.org/10.1093/sf/sox030

England, Paula; McClintock, Elizabeth A. 2009: The gendered double standard of aging in US marriage markets. In: Population and Development Review 35,4: 797-816. https://doi.org/10.1111/j.1728-4457.2009.00309.x

England, Paula; Allison, Paul D.; Sayer, Liana C. 2016: Is your spouse more likely to divorce you if you are the older partner? In: Journal of Marriage and Family 78,5: 1184-1194. https://doi.org/10.1111/jomf.12314

Esping-Andersen, Gøsta 1990: The Three Worlds of Welfare Capitalism. Cambridge: Polity Press.

Esping-Andersen, Gøsta; Billari, Francesco C. 2015: Re-theorizing family demographics. In: Population and Development Review 41,1: 1-31. https://doi.org/10.1111/j.1728-4457.2015.00024.x

Esteve, Albert; Cortina, Clara; Cabré, Ana 2009: Long Term Trends in Marital Age Homogamy Patterns: Spain 1922-2006. In: Population 64,1: 173-202.

Esteve, Albert; García-Román, Joan; Lesthaeghe, Ron 2012: The family context of cohabitation and single motherhood in Latin America. In: Population and Development Review 38,4: 707-727. https://doi.org/10.1111/j.1728-4457.2012.00533.x

Frimmel, Wolfgang; Halla, Martin; Winter-Ebmer, Rudolf 2013: Assortative mating and divorce: Evidence from Austrian register data. In: Journal of the Royal Statistical Society Series A: Statistics in Society 176,4: 907-929. https://doi.org/10.1111/j.1467-985X.2012.01070.x

Gentleman, Jane F.; Park, Evelyn 1994: Age differences of married and divorcing couples. In: Health reports 6,2: 225-240.

Giuliani, Giuliana 2019: The Patterns of Age Differences Between Spouses in Italy, 1870-2015. In*: Samoggia, Alessandra; Scalone Francesco* (Eds.): La famiglia tra mutamenti demografici e sociali. Udine Forum: 163-172.

Giuliani, Giuliana 2020: Who is older?: gender and age differences in heterosexual couples (Doctoral dissertation). Florence: Department of Political and Social Sciences of the European University Institute.

Glicksohn, Joseph; Golan, Hilla 2001: Personality, cognitive style and assortative mating. In: Personality and Individual Differences 30,7: 1199-1209. https://doi.org/10.1016/S0191-8869(00)00103-3

Goldscheider, Frances; Kaufman, Gayle; Sassler, Sharon 2009: Navigating the "new" marriage market: How attitudes toward partner characteristics shape union formation. In: Journal of Family Issues 30,6: 719-737. https://doi.org/10.1177/0192513X09331570

Greenwood, Jeremy et al. 2014: Marry your like: Assortative mating and income inequality. In: American Economic Review 104,5: 348-353. http://dx.doi.org/10.1257/aer.104.5.348

Guarneri, Antonella et al. 2021: On the magnitude, frequency, and nature of marriage dissolution in Italy: insights from vital statistics and life-table analysis. In: Genus 77,28: 1-24. https://doi.org/10.1186/s41118-021-00138-2

Guiso, Luigi; Zaccaria, Luana 2023: From patriarchy to partnership: Gender equality and household finance. In: Journal of Financial Economics 147,3: 573-595. https://doi.org/10.1016/j.jfineco.2023.01.002

Guzzo, Karen B.; Hayford, Sarah R. 2023: Evolving fertility goals and behaviors in current US childbearing cohorts. In: Population and Development Review 49,1: 7-42. https://doi.org/10.1111/padr.12535

Hancock, Ruth; Stuchbury, Rachel; Tomassini, Cecilia 2003: Changes in the distribution of marital age differences in England and Wales, 1963 to 1998. In: Population Trends 114: 19-25.

Härkönen, Juho; Dronkers, Jaap 2006: Stability and change in the educational gradient of divorce. A comparison of seventeen countries. In: European Sociological Review 22,5: 501-517. https://doi.org/10.1093/esr/jcl011

Hartnett, Jack; Rosen, Fred; Shumate, Michael 1981: Attribution of age-discrepant couples. In: Perceptual and Motor Skills 52,2: 355-358. https://doi.org/10.2466/pms.1981.52.2.355

Heckman, James J. 1976: The common structure of statistical models of truncation, sample selection and limited dependent variables and a simple estimator for such models. In: Annals of Economic and Social Measurement 5,4: 475-492.

Impicciatore, Roberto; Billari, Francesco C. 2012: Secularization, union formation practices, and marital stability: Evidence from Italy. In: European Journal of Population 28,2: 119-138. https://doi.org/10.1007/s10680-012-9255-4

Iversen, Torben; Rosenbluth, Frances; Soskice, David 2005: Divorce and the gender division of labor in comparative perspective. In: Social Politics: International Studies in Gender, State & Society 12,2: 216-242. https://doi.org/10.1093/sp/jxi012

Janssen, Jacques P. G.; De Graaf, Paul M.; Kalmijn, Matthijs 1999: Heterogamy and divorce: an analysis of Dutch register data, 1974-1994. In: Bevolking en Gezin 28,1: 35-57.

Kalmijn, Matthijs 1991: Status homogamy in the United States. In: American Journal of Sociology 97,2: 496-523. https://doi.org/10.1086/229786

Kalmijn, Matthijs; Poortman, Anne-Rigt 2006: His or her divorce? The gendered nature of divorce and its determinants. In: European Sociological Review 22,2: 201-214. https://doi.org/10.1093/esr/jci052

Kamen, Paula 2000: Her way: Young women remake the sexual revolution. New York. NYU Press.

Kippen, Rebecca et al. 2013: What's love got to do with it? Homogamy and dyadic approaches to understanding marital instability. In: Journal of Population Research 30: 213-247. https://doi.org/10.1007/s12546-013-9108-y

Knight, Carly R.; Brinton, Mary C. 2017: One egalitarianism or several? Two decades of gender-role attitude change in Europe. In: American Journal of Sociology 122,5: 1485-1532. https://doi.org/10.1086/689814

Kohler, Ulrich; Class, Fabian; Sawert, Tim 2024: Control variable selection in applied quantitative sociology: a critical review. In: European Sociological Review 40,1: 173-186. https://doi.org/10.1093/esr/jcac078

Kolk, Martin 2015: Age differences in unions: Continuity and divergence among Swedish couples between 1932 and 2007. In: European Journal of Population 31: 365-382. https://doi.org/10.1007/s10680-015-9339-z

Lee, Wang-Sheng; McKinnish, Terra 2018: The marital satisfaction of differently aged couples. In: Journal of Population Economics 31,2: 337-362. https://doi.org/10.1007/s00148-017-0658-8

Lehmiller, Justin James; Agnew, Christopher R. 2008: Commitment in Age-Gap Heterosexual Romantic Relationships: A Test of Evolutionary and Socio-Cultural Predictions. In: Psychology of Women Quarterly 32,1: 74-82. https://doi.org/10.1111/j.1471-6402.2007.00408.x

Lesthaeghe, Ron 1983: A century of demographic and cultural change in Western Europe: An exploration of underlying dimensions. In: Population and Development Review 9,3: 411-435. http://dx.doi.org/10.2307/1973316

Lesthaeghe, Ron 1995: The second demographic transition in Western countries: An interpretation. In: *Oppenheim Mason, Karen; Jensen, An-Magritt* (Eds.): Gender and Family Change in Industrialized Countries. Oxford: Oxford University Press 17-62. http://dx.doi.org/10.1093/oso/9780198289708.003.0002

Lesthaeghe, Ron 2014: The second demographic transition: A concise overview of its development. In: Proceedings of the National Academy of Sciences 111,51: 18112-18115. https://doi.org/10.1073/pnas.1420441111

Matysiak, Anna; Styrc, Marta; Vignoli, Daniele 2014: The educational gradient in marital disruption: A meta-analysis of European research findings. In: Population Studies 68,2: 197-215. https://doi.org/10.1080/00324728.2013.856459

Mazzeo, Flavia et al. 2024: Trends in Women's Educational Advantage and Divorce in East and West Germany. In: Comparative Population Studies 49: 317-336. https://doi.org/10.12765/CPoS-2024-13

McClendon, David 2016: Religion, marriage markets, and assortative mating in the United States. In: Journal of Marriage and Family 78,5: 1399-1421. https://doi.org/10.1111/jomf.12353

McClintock, Elisabeth Aura 2014: Beauty and status: The illusion of exchange in partner selection? In: American Sociological Review 79,4: 575-604. https://doi.org/10.1177/0003122414536391

McDonald, Peter 2013: Societal foundations for explaining low fertility: Gender equity. In: Demographic Research 28: 981-994. https://doi.org/10.4054/DemRes.2013.28.34

Mize, Trenton D.; Doan, Long; Long, J. Scott 2019: A general framework for comparing predictions and marginal effects across models. In: Sociological Methodology 49,1: 152-189. https://doi.org/10.1177/0081175019852763

Montemurro, Beth; Siefken, Jenna Marie 2014: Cougars on the prowl? New perceptions of older women's sexuality. In: Journal of Aging Studies 28: 35-43. https://doi.org/10.1016/j.jaging.2013.11.004

Öberg, Peter; Tornstam, Lars 1999: Body images among men and women of different ages. In: Ageing & Society 19,5: 629-644. https://doi.org/10.1017/S0144686X99007394

Oppenheimer, Valerie K. 1997: Women's employment and the gain to marriage: The specialization and trading model. In: Annual Review of Sociology 23: 431-453. https://doi.org/10.1146/annurev.soc.23.1.431

Parsons, Talcott 1949: The social structures of the family. In: *Anshen, Ruth Nanda* (Ed.): The Family: Its Function and Destiny. Harper: 173-201.

Potarca, Gina 2020: The demography of swiping right. An overview of couples who met through dating apps in Switzerland. In: PLoS One 15,12: e0243733. https://doi.org/10.1371/journal.pone.0243733

Presser, Harriet B. 1975: Age differences between spouses: Trends, patterns, and social implications. In: American Behavioral Scientist 19,2: 190-205. https://doi.org/10.1177/000276427501900205

Proulx, Nichole; Caron, Sandra L.; Logue, Mary Ellin 2006: Older women/younger men: A look at the implications of age difference in marriage. In: Journal of Couple & Relationship Therapy 5,4: 43-64. https://doi.org/10.1300/J398v05n04_03

Rosina, Alessandro; Fraboni, Romina 2004: Is marriage losing its centrality in Italy? In: Demographic Research 11: 149-172. https://doi.org/10.4054/DemRes.2004.11.6

Qian, Zhenchao; Lichter, Daniel T. 2007: Social boundaries and marital assimilation: Interpreting trends in racial and ethnic intermarriage. In: American Sociological Review 72,1: 68-94. https://doi.org/10.1177/000312240707200104

Reher, David S. 1998: Family Ties in Western Europe: Persistent Contrasts. In: Population and Development Review 24,2: 203-234. https://doi.org/10.2307/2807972

Saardchom, Narumon; Lemaire, Jean 2005: Causes of increasing ages at marriage: An international regression study. In: Marriage & Family Review 37,3: 73-97. https://doi.org/10.1300/J002v37n03_05

Salvini, Silvana; Vignoli, Daniele 2011: Things change: Women's and men's marital disruption dynamics in Italy during a time of social transformations, 1970-2003. In: Demographic Research 24: 145-174. https://doi.org/10.4054/DemRes.2011.24.5

Saresella, Daniela 2017: The battle for divorce in Italy and opposition from the catholic world (1861-1974). In: Journal of Family History 42,4: 401-418. https://doi.org/10.1177/0363199017725468

Skopek, Jan; Schulz, Florian; Blossfeld, Hans-Peter 2011: Who contacts whom? Educational homophily in online mate selection. In: European Sociological Review 27,2: 180-195. https://doi.org/10.1093/esr/jcp068

Teachman, Jay D. 2002: Stability across cohorts in divorce risk factors. In: Demography 39,2: 331-351. https://doi.org/10.2307/3088342

Thomas, Reuben J. 2020: Online exogamy reconsidered: Estimating the Internet's effects on racial, educational, religious, political and age assortative mating. In: Social Forces 98,3: 1257-1286. https://doi.org/10.1093/sf/soz060

Thornton, Arland 1989: Changing attitudes toward family issues in the United States. In: Journal of Marriage and Family 51,4: 873-893. https://doi.org/10.2307/353202

Trimarchi, Alessandra; Van Bavel, Jan 2017: Pathways to marital and non-marital first birth: The role of his and her education. In: Vienna Yearbook of Population Research 15: 143-179. http://dx.doi.org/10.1553/populationyearbook2017s143

Uunk, Wilfred 2024: Trends and cross-national differences in educational homogamy in Europe. The role of educational composition. In: Comparative Population Studies 49: 215-242. https://doi.org/10.12765/CPoS-2024-09

Van Bavel, Jan; Schwartz, Christine R.; Esteve, Albert 2018: The reversal of the gender gap in education and its consequences for family life. In: Annual Review of Sociology 44: 341-360. https://doi.org/10.1146/annurev-soc-073117-041215

Van de Putte, Bart et al. 2009: The rise of age homogamy in 19th century Western Europe. In: Journal of Marriage and Family 71,5: 1234-1253. https://doi.org/10.1111/j.1741-3737.2009.00666.x

Van de Kaa, Dirk J. 2001: Postmodern fertility preferences: From changing value orientation to new behavior. In: Population and Development Review 27: 290-331.

Van Poppel, Frans et al. 2001: Love, necessity and opportunity: Changing patterns of marital age homogamy in the Netherlands, 1850-1993. In: Population Studies 55,1: 1-13. https://doi.org/10.1080/00324720127681

Warren, Carol A. B. 1996: Older women, younger men: Self and stigma in age-discrepant relationships. In: Clinical Sociology Review 14,1: 65-86.

Date of submission: 31.10.2023 *Date of acceptance: 15.07.2024*

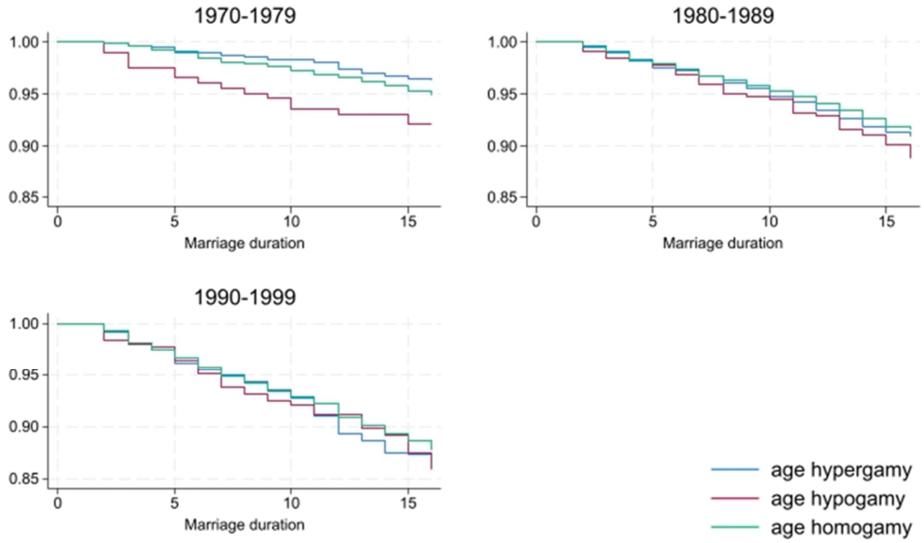
Dr. Giulia Corti (✉). Centre d'Estudis Demogràfics (CED-CERCA). Barcelona, Spain.
E-mail: gcorti@ced.uab.es
URL: https://ced.cat/en/directori/giulia-corti/

Dr. Daniela Bellani. Università Cattolica del Sacro Cuore. Milan, Italy.
E-mail: daniela.bellani@unicatt.it
URL: https://publires.unicatt.it/en/persons/daniela-bellani

Dr. Antonella Guarneri, Dr. Francesca Rinesi. Italian National Institute of Statistics. Rome, Italy.
E-mail: guarneri@istat.it; rinesi@istat.it
URL: https://www.researchgate.net/profile/Antonella-Guarneri
https://www.researchgate.net/scientific-contributions/Francesca-Rinesi-2023709646

Appendix

Fig. A1: Kaplan-Meier survival functions of surviving marriage of marriages by marriage cohorts and age pairings



Source: "Families, social subjects and life cycle" (*Istat* 2016). Own elaborations

Tab. A1: Association between partner's age gap and marital disruption using average discrete changes from binary logit model

	(M1)	(M2)	(M3)
Panel A: Average discrete change (ADC)			
Ref.: Age hypergamy			
Age hypogamy			
1970-1979	.005**	.005**	.005**
	(.002)	(.002)	(.002)
1980-1989	.002	.002	.002
	(.002)	(.002)	(.002)
1990-1999	.001	.001	001
	(.002)	(.002)	(.002)
Age homogamy			
1970-1979	.001	.001	.001
	(.001)	(.001)	(.001)
1980-1989	-.000	-.000	-.000
	(.001)	(.001)	(.001)
1990-1999	.000	.000	.000
	(.001)	(.001)	(.001)
Basic controls	YES	YES	YES
Additional controls	YES	YES	NO
Duration categories	YES	NO	NO
Duration yearly	NO	YES	NO
Duration categories, years of cohabitation included	NO	NO	YES
Panel B: Cross-model differences			
ADC Model 1 – ADC Model 2	0.617		
	(0.118)		
ADC Model 2 – ADC Model 3	-0.227		
	(0.079)		
ADC Model 1 – ADC Model 3	0.390		
	(0.097)		

Note: Panel A of Table A1: Average discrete changes (ADC) within the same models are calculated to obtain the difference between the adjusted predictive of being in a hyper/homogamous couple and the adjusted predictive of being in hypergamous couple.
Panel B of Table A1: we use differences of ADCs across different models to provide a direct test of what the inclusion of a certain variable adds to the explanatory power of a certain model.
Robust standard errors in parenthesis, *** p<.01, ** p<.05, * p<.1.

Source: "Families, social subjects and life cycle" (*Istat* 2016). Own elaborations.

Tab. A2a: Discrete-time event history logistic regression results for marital disruption. Alternative measure of age pairing

	(M1)	(M2)	(M3)
Husband-wife age gap categories [+2 *or* +3= *ref cat*]			
<-2	.404**	-.365	-.271
	(.183)	(.73)	(.736)
-2 or -1	.126	.859***	1.003***
	(.159)	(.322)	(.323)
0 or +1	.042	.013	.021
	(.109)	(.269)	(.271)
+4 or +5	-.274**	-.229	-.189
	(.12)	(.276)	(.276)
>+5	-.131	-.307	-.294
	(.111)	(.282)	(.282)
Marriage cohort (ref.: 1970-1979)			
1980-1989	.624***	.511**	.475**
	(.112)	(.214)	(.215)
1990-1999	1.014***	1.138***	1.136***
	(.117)	(.209)	(.21)
>-2 years *1980-1989		1.105	1.045
		(.782)	(.79)
>-2 years *1990-1999		.601	.53
		(.775)	(.783)
-2 or -1 years *1980-1989		-.69*	-.793*
		(.413)	(.415)
-2 or -1 years *1990-1999		-1.088***	-1.219***
		(.405)	(.408)
0 or +1 years *1980-1989		.236	.178
		(.32)	(.322)
0 or +1 years *1990-1999		-.14	-.193
		(.314)	(.315)
+4 or +5 years *1980-1989		.064	.023
		(.336)	(.336)
+4 or +5 years *1990-1999		-.161	-.179
		(.326)	(.326)
>+5 years *1980-1989		.338	.368
		(.33)	(.331)
>+5 years *1990-1999		.088	.003
		(.325)	(.327)

Tab. A2a: Continuation

	(M1)	(M2)	(M3)
Constant	-4.317***	-4.164***	-2.117*
	(1.038)	(1.055)	(1.118)
Spells	120783	120783	120783
Number of clusters	7,894	7,894	7,894
Basic controls	YES	YES	YES
Additional controls	NO	NO	YES
Duration categories	YES	YES	YES

Note: Robust standard errors in parenthesis, *** p<.01, ** p<.05, * p<.1. Basic controls are duration of the marriage, pre-marital cohabitation, wife's age and its squared term, respondent's sex. Additional controls to the basic model are region of residence, marriage ritual, Italian citizenship, respondent's level of education.

Source: "Families, social subjects and life cycle" (*Istat* 2016). Own elaborations.

Tab. A2b: Discrete-time event history logistic regression results for marital disruption. Alternative measure of age pairing

	(M1)	(M2)	(M3)
Husband-wife age gap categories [>4= *ref cat*]			
<0	.334**	.961***	1.035***
	(.133)	(.321)	(.321)
+2 or +3 or +4	-.007	.369	.345
	(.094)	(.239)	(.239)
0 or +1	.151	.384	.35
	(.109)	(.283)	(.284)
Marriage cohort (*ref.: 1970-1979*)			
1980-1989	.617***	.891***	.883***
	(.112)	(.219)	(.219)
1990-1999	.998***	1.359***	1.312***
	(.117)	(.222)	(.224)
<0 * II cohort		-.586	-.666*
		(.372)	(.372)
<0 * III cohort		-.852**	-.867**
		(.368)	(.369)
+2 or +3 or +4*1980-1989		-.45	-.48*
		(.282)	(.282)
+2 or +3 or +4*1990-1999		-.443	-.388
		(.277)	(.278)
0 or +1*1980-1989		-.149	-.215
		(.323)	(.323)
0 or +1*1990-1999		-.372	-.355
		(.32)	(.321)
Constant	-4.589***	-4.588***	-2.871***
	(.994)	(1.007)	(1.065)
Spells	120783	120783	120783
Number of clusters	7,894	7,894	7,894
Basic controls	YES	YES	YES
Additional controls	NO	NO	YES
Duration categories	YES	YES	YES

Note: Robust standard errors in parenthesis, *** p<.01, ** p<.05, * p<.1. Basic controls are duration of the marriage, pre-marital cohabitation, wife's age and its squared term, respondent's sex. Additional controls are region of residence, marriage ritual, Italian citizenship, respondent's level of education.

Source: "Families, social subjects and life cycle" (*Istat* 2016). Own elaborations.

Tab. A3: Discrete-time event history logistic regression results for marital disruption, controlling for educational level of partners at engagement

	(M1)	(M2)	(M3)	(M4)
Husband-wife age pairing (ref: Age hypergamy)				
Age hypogamy	1.075***	1.052***	1.083***	.977***
	(.323)	(.323)	(.323)	(.302)
Age homogamy	.342	.318	.333	.268
	(.231)	(.231)	(.231)	(.207)
Marriage cohort (ref.: 1970-1979)				
1980-1989	.857***	.861***	.841***	.686***
	(.224)	(.223)	(.224)	(.183)
1990-1999	1.254***	1.207***	1.208***	1.048***
	(.227)	(.227)	(.228)	(.189)
Age hypogamy*1980-1989	-.748**	-.783**	-.767**	-.519
	(.379)	(.379)	(.38)	(.353)
Age hypogamy*1990-1999	-.930**	-.973***	-.970***	-.659*
	(.369)	(.37)	(.37)	(.351)
Age homogamy*1980-1989	-.281	-.296	-.277	-.089
	(.267)	(.266)	(.267)	(.241)
Age homogamy*1990-1999	-.286	-.249	-.251	.02
	(.261)	(.261)	(.261)	(.238)
Constant	-2.997	-2.479	-2.379	-2.733**
	(1.068)	(1.074)	(1.09)	(1.211)
Pseudo R^2	.035	.037	.037	.040
Basic controls	YES	YES	YES	YES
Additional controls	YES	YES	YES	YES
Female partner's educational level at engagement	YES	NO	YES	YES
Male partner's educational level at engagement	NO	YES	YES	YES
Educational homogamy	NO	NO	NO	YES
Duration categories	YES	YES	YES	YES

Note: Basic controls are duration of the marriage, pre-marital cohabitation, wife's age and its squared term, respondent's sex. Additional controls to the basic model are region of residence, marriage ritual, Italian citizenship.
Robust standard errors in parenthesis, *** p<.01, ** p<.05, * p<.1.

Source: "Families, social subjects and life cycle" (*Istat* 2016). Own elaborations.

Tab. A4: Probit Model for marital disruption, controlling for selection

	(M1)	(M2)
Husband-wife age gap (ref: Hypergamy)		
Hypogamy	.715**	.714**
	(.283)	(.283)
Homogamy	.335	.333
	(.215)	(.215)
Marriage cohort (ref.: 1970-1979)		
1980-1989	.444**	.441**
	(.216)	(.216)
1990-1999	.645***	.644***
	(.22)	(.22)
Hypogamy*1980-1989	-.316	-.317
	(.32)	(.32)
Hypogamy*1990-1999	-.552*	-.553*
	(.315)	(.315)
Homogamy*1980-1989	-.283	-.281
	(.241)	(.241)
Homogamy*1990-1999	-.318	-.318
	(.237)	(.237)
Constant	-.624	-.555
	(.647)	(.642)
Heckman correction	NO	YES

Robust standard errors in parenthesis, *** p<.01, ** p<.05, * p<.1.
Source: "Families, social subjects and life cycle" (Istat, 2016). Own elaborations.

Comparative Population Studies

www.comparativepopulationstudies.de

ISSN: 1869-8980 (Print) – 1869-8999 (Internet)

Published by
Federal Institute for Population Research (BiB)
65180 Wiesbaden / Germany

Managing Publisher
Dr. Nikola Sander