



# The prospective power of personality factors for family formation and dissolution processes among males

Evidence from Swedish register data

Steffen Peters

# The prospective power of personality factors for family formation and dissolution processes among males

Evidence from Swedish register data

Steffen Peters<sup>1,2</sup>

<sup>1</sup>*Max Planck Institute for Demographic Research*

<sup>2</sup>*Stockholm University*

## Abstract

Personality plays an essential role with respect to important life outcomes such as education or career success. Although these outcomes are linked with family formation processes, the association between personality and family formation (dissolution) has been underexplored in demographic research. My study contributes to existing research by examining the prospective association between two personality facets (social maturity (SM), and emotional stability (ES)) and family formation and dissolution processes, i.e. 1) marital status, 2) fertility, and 3) partnership dissolution as both a) divorce and b) cohabitation dissolution, based on large Swedish register data. Poisson regression, Linear Probability, and Cox proportional hazard models were applied for different outcomes. My findings suggest that males with high scores on SM and ES measured at age of assignment to military service (17-20 years) are more likely to get married by age 39 and higher. Regarding fertility, SM and ES reveal positive associations with offspring counts and negative associations with the probability of remaining childless by age 39 and higher. Relationship dissolution is linked with SM via a U-shape pattern, i.e. highest and lowest scores on this trait are associated with higher separation risks. Further analyses using sibling comparisons support these findings.

**Keywords:** Family Formation, Male Fertility, Marital Behavior, Personality

Stockholm Research Reports in Demography 2022:24

ISSN 2002-617X

© Steffen Peters



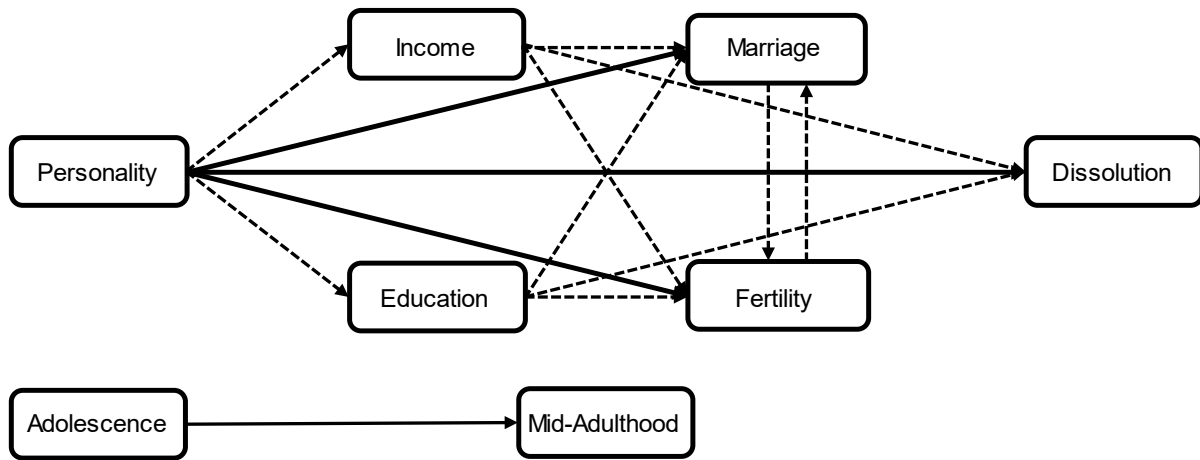
This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

## Introduction

During the second half of the last century, demographic patterns changed drastically in many European countries. Marriage and fertility rates declined whereas cohabitation and divorce rates increased (van de Kaa, 1987). The ‘Second Demographic Transition’ (SDT) suggests that contraceptives or abortion contributed to fertility declines below replacement levels since individuals could decide whether and when to get a child (van de Kaa, 1987). Therefore, childbearing became more individualized. Furthermore, the SDT addresses trends in individual attitudes and values. Individualization has become more important, in particular regarding family formation processes (van de Kaa, 1987). Personality factors belong to the most unique individual characteristics. Previous studies have examined the association between personality factors and family-related processes such as marriage (Jokela et al., 2011; Lundberg, 2012), fertility (Allen, 2019; Jokela et al., 2009, 2011; Peters, 2022), or divorce (Boertien et al., 2017; Boertien & Mortelmans, 2018; Lundberg, 2012). Research on personality and family formation (dissolution) based on large register data is scarce though.

My study examines the prospective association between personality measured in younger ages and family formation outcomes by mid-adulthood (marriage, fertility, partnership dissolution). I make use of high-quality Swedish register data that captures each registered person in Sweden. Personality factors shape early life events such as education (Damian et al., 2015; Leikas & Salmela-Aro, 2015; Meyer et al., 2019; Usslepp et al., 2020) and partnership formation (Leone & B. Hawkins, 2019; Neyer & Asendorpf, 2001; Senia et al., 2016) that are also associated with family formation by mid-adulthood (Baizán et al., 2003; Balbo et al., 2013; Sobotka et al., 2017). Therefore, it appears crucial to examine the association between personality from young ages and family formation by mid-adulthood. This relationship can be visualized such as in Fig. 1 below. Personality may influence family formation and dissolution directly as well as via income or education.

Figure 1: Conceptual model of how personality may affect family formation and dissolution processes



Note: Solid lines represent direct effects of personality on family formation and partnership dissolution; pathways with dashed lines show potential mediation paths

Previous research on the relationship between personality and family formation has focused on the Five Factor Model (FFM), which is the most widely accepted measure of personality. However, previous studies often use cross-sectional data (Alvergne et al., 2010; Avison & Furnham, 2015), or longitudinal data but measure personality at relatively high ages (Jokela et al., 2011; Skirbekk & Blekesaune, 2014; Tavares, 2016). Previous research on the prospective association between personality and fertility (as family formation indicator) is not based on large register data (Peters, 2022), or on personality facets other than FFM factors (Peters & Barclay, 2022). Additionally, Swedish register data allow greater depth analyses on the link between personality and family outcomes, exploring the role of potential socio-economic mediators (income, education). Furthermore, fixed-effects approaches isolate the net influence of personality on family formation and dissolution processes from background factors that might bias the relationship.

## Theoretical Background

### *Second Demographic Transition*

Lesthaeghe and van de Kaa (1986) have developed the Second Demographic Transition (SDT) theory that aims for explaining demographic trends (fertility and marriage declines, increasing

divorce rates) among high-income countries in the second half of the last century (van de Kaa, 1987). For instance, the total fertility rate (TFR) of Sweden has declined below replacement level (TFR mid-1960s: ca. 2.5 vs. TFR early 1980s: just above 1.6) (The World Bank, 2022). The SDT considers both structural components (e.g. female labor market participation) and ideational factors (e.g. individualization, self-realization) as explanation for these trends (Lesthaeghe, 2014; van de Kaa, 1987). For instance, the use of contraceptives and abortion have contributed to better control over fertility (van de Kaa, 1987). Therefore, unplanned pregnancies were less likely, and those couples who intended to stay childless were more likely to do so (Lesthaeghe, 2014; van de Kaa, 1987).

In this study, I consider the role of individualization facets (personality) for family formation (marriage, fertility) and dissolution (divorce, cohabitation dissolution). Individuals may decide whether and when to get married, enter parenthood, or end a partnership. Personality factors play an essential role for these considerations. For instance, individuals may refrain from having children because they may expect freedom restrictions after childbirth (Langdridge et al., 2005), or they believe to have personality traits that are unsuitable for parenthood (Park, 2005). Furthermore, personality may affect partnering and dissolution processes, e.g. via education and employment. Since it takes time to complete education or generate assets for family support, personality from younger ages are of particular interest in my study.

### *Social maturity and family formation*

Previous research has increasingly focused on personality and non-cognitive skills as determinants of family formation processes (Jokela et al., 2011; Jokela & Keltikangas-Järvinen, 2009; Peters & Barclay, 2022). Social maturity (SM) belongs to these factors. It includes facets such as extraversion, independence, or responsibility (Bihagen et al., 2013). Extraversion has taken a predominant role in both the Swedish military considerations (Larsson & Kallenberg, 2006) and previous research on personality and marital behavior (Jokela et al., 2011; Lundberg, 2012). Extraversion may shape the opportunity to get married in early life by partnering processes. Young extraverts report higher closeness to and importance of friends (Neyer & Asendorpf, 2001), and extravert females are more interested in short-term mating than introvert ones (Schmitt & Shackelford, 2008). Furthermore, people with higher extraversion scores report higher partnership satisfaction (Orth, 2013) and quality (A. S. Holland & Roisman, 2008), which may increase the probability of getting married.

Additionally, extraversion is positively linked with the chances for falling in love in young ages (Asendorpf & Wilpers, 1998). Thus, personality plays a role for partnering in early life already, which may affect marital behavior by mid-adulthood.

Empirically, previous research has suggested strong (and positive) associations between extraversion and marriage, particularly among males (Jokela et al., 2011; Lundberg, 2012). Extravert individuals are more likely to marry (Jokela et al., 2011; Lundberg, 2012) and enter marriage earlier in life course (Jokela et al. 2011). Therefore, my first hypothesis assumes a positive correlation between SM – measured in younger ages – and marriage:

*Hypothesis 1: Social maturity is positively linked with the probability of getting married by mid-adulthood.*

Additionally, personality may be connected with fertility – through attitudes and intentions. For instance, agreeableness indicators are positively linked with the intention to get a child (Miller, 1992, 2011). Other traits such as shyness are negatively associated with parenthood expectations (Hutteman et al., 2013). Intentions and expectations are (directly) linked with fertility outcomes (Ajzen & Klobas, 2013; Miller, 2011). Additionally, fertility may be shaped by opportunities that are also associated with personality factors (see the section on partnering processes above). SES may also play a role for childbearing via resources that are relevant for family support. Holland (1958) suggested that personality is linked with the choice of occupation and college, i.e. with SES indicators in early life already. Indeed, extravert individuals are more likely to follow the vocational path after upper secondary education (Usslepp et al., 2020). This may affect the extent to which resources are available in early stages of life and, therefore, whether a child can be supported financially.

Extraversion – among all SM facets – has received the greatest attention as determinant of reproductive behavior in previous research. For instance, extraversion is positively associated with the number of sex partners (Allen & Desille 2017; Miller et al. 2004; Nettle 2005, 2006; Schmitt 2004). However, further evidence suggests that sociability indicators are negatively linked with desires of having a partner (Kislev, 2020) and fertility intentions (Miller, 1992). Nevertheless, previous research strongly suggests a positive association between extraversion and childbearing. Extraversion is positively related to a higher likelihood of having a first and second child (Jokela et al., 2009, 2011), accelerated childbearing (Jokela et al. 2011; Tavares 2016) and lower risks to remain childless (Avison & Furnham 2015) among both men and

women. However, several findings indicate stronger associations between extraversion and childbearing among males (Peters, 2022). For instance, extraversion is positively linked with the number of children among men but not so much among women (Allen 2019; Jokela et al. 2011; Skirbekk & Blekesaune 2014). Consequently, my second hypothesis is set up as follows:

*Hypothesis 2: Social maturity is positively linked with fertility by mid-adulthood.*

### *Emotional stability and family formation*

Emotional stability (ES) refers to the capability of dealing with nervousness, stress, and anxiety (Bihagen et al., 2013). ES has often been implicitly measured by previous research using the Five Factor Model (FFM). One factor of the FFM is neuroticism, which is the opposite of ES (Ashton & Lee, 2005; Goldberg, 1993; McCrae & Costa, 1987). Although previous research has rather used neuroticism, I will only speak about ES when citing other authors for simplicity purposes even if they referred to its opposite (neuroticism).

Previous research has examined the link between ES and partnership outcomes. For instance, ES is positively associated with partnership satisfaction (Fisher & McNulty, 2008; Karney & Bradbury, 1997; Malouff et al., 2010; McNulty, 2008), and relationship quality (Donnellan et al. 2004), which may lead to marriage. While evidence from Germany does not point at an association between ES and the probability of getting married by age 35 (Lundberg, 2012), findings from the Nordic context suggest a positive association, in particular among men (Jokela et al., 2011). Therefore, my third hypothesis assumes a positive association between ES and marriage for the Swedish context:

*Hypothesis 3: Emotional stability is positively linked with the probability to get married by mid-adulthood.*

In addition to that, several studies have examined the ES-fertility link. ES is related to decreasing ambivalence regarding fertility decisions (Pinquart et al. 2008), and to lower depression risks (Gershuny & Sher 1998). Entry into parenthood increases stress levels (Epifanio et al., 2015), and affects social life (Johnson & Rodgers, 2006) and psychological well-being negatively among adults (McLanahan & Adams, 1987). Thus, people with lower ES scores may expect parenthood to be more stressful than individuals with higher ES scores do, which may be transformed into fertility behavior. On the other hand, individuals with low

ES scores may consider parenthood as stabilizing factor in life (Johns et al., 2011) and partnership (Friedman et al. 1994).

Previous research provides evidence for both positive and negative associations between ES and fertility. While positive links can be detected between ES and the probability of being parents (Jokela, 2012), as well as having a second and a third child (Jokela et al., 2009), negative links between ES and fertility also appear (Jokela et al. 2011; Tavares 2016). Furthermore, ES seems to play a greater role for women's fertility and remains relatively unimportant among men. For instance, higher ES scores are associated with having more children among women but not among men (Jokela et al. 2011). Based on the explanations above and the fact that my analyses include men only, I do not expect to find an association between ES and childbearing.

*Hypothesis 4: Emotional stability is not linked with fertility by mid-adulthood.*

#### *Social maturity and relationship dissolution*

Although SM is expected to be positively linked with marriage, this factor may also increase dissolution risks. Previous research has shown that extraversion is associated with higher infidelity (Orzeck & Lung 2005), which may result in higher partnership dissolution risks. Indeed, previous studies suggest that higher levels of extraversion are associated with higher divorce risks in high-income countries in Europe (Boertien et al., 2017; Boertien & Mortelmans, 2018), and in particular among males (Lundberg, 2012). Although extraversion may also be linked with greater partnership stability based on higher relationship satisfaction (as explained above), previous findings rather suggest a positive association between extraversion and partnership dissolution risks, which is represented in my hypothesis:

*Hypothesis 5: Social maturity is positively linked with relationship dissolution by mid-adulthood.*

#### *Emotional stability and relationship dissolution*

Previous research has shown that lower ES of a partner is linked with higher infidelity risks (Orzeck & Lung, 2005). Consequently, low scores on ES are also linked with higher divorce risks (Boertien & Mortelmans, 2018; Lundberg, 2012), and higher risks of relationship



dissolution (Solomon & Jackson, 2014). However, there is also evidence for ES not being linked with divorce risks (Boertien et al., 2017).

Although there is mixed evidence for the association between ES and divorce, previous findings rather suggest a negative association between ES and dissolution. Therefore, I expect ES to be negatively associated with divorce/cohabitation dissolution risks by age 39 and higher in my study:

*Hypothesis 6: Emotional stability is negatively linked with relationship dissolution by mid-adulthood.*

### *The role of socio-economic status*

Personality from younger ages may affect family formation and dissolution by mid-adulthood via socio-economic status (SES). Extraversion and ES are positively linked with higher education (Damian et al., 2015), annual income (Jonason et al., 2018) and occupational attainment (Roberts et al., 2007). Personality may play an important role for the transitions to education and employment that usually occur in early life. For example, previous research has found that extraversion is positively linked with job interview performance (Caldwell & Burger, 1998; Cook et al., 2000). This may affect later life outcomes, e.g. extravert individuals show greater career success over work life (Judge et al., 1999). Additionally, ES is positively associated with the tendency to define clear goals and work efficiently (Judge & Ilies, 2002), and with career success (Judge et al., 1999). Higher SES, in turn, may be an attractive trait on the partner market, promote marriages and reduce divorce risks.

SES indicators are associated with marital behavior in the Nordic countries (Duvander & Kridahl, 2020; Sandström & Stanfors, 2020). For instance, high education is positively linked with the intention to marry among males (Wiik et al., 2010). The correlation between income and marital behavior seems to be less clear though. On the one hand, there is evidence from Sweden indicating that income does not play a great role for marriage intentions (Duvander & Kridahl, 2020). However, another study suggests that income is positively linked with marriage intentions among males from Nordic countries (Wiik et al., 2010). A negative association between SES and relationship dissolution has been found using data from Norway (Lyngstad, 2004) and Finland (Jalovaara, 2001, 2013) although the consideration of a partner's characteristics may attenuate this pattern (Jalovaara, 2003).

SES may also shape fertility behavior. Anthropologists have argued that a higher SES provides important advantages with regards to survival and reproduction, in particular for males (Cummins, 2006). A higher SES may be more attractive for a potential partner due to greater access to resources and the supply of protection (Buss, 1994, 2006; Cummins, 2006). As shown above, personality is linked with SES indicators. Furthermore, previous research has found a positive association between SES indicators and fertility among males (Fieder et al., 2005; Hopcroft, 2006), in particular in the Nordic countries (Kolk, 2019; Kolk & Barclay, 2021). For instance, income is positively linked with second and third childbirths among males in Sweden (Andersson & Scott, 2007). Additionally, lower-educated men from Nordic countries show lower fertility and higher probabilities to remain childless over life course (Jalovaara et al., 2019). Considering previous findings on SES and marriage/fertility, it is crucial to include factors such as income and education as potential mediators in my models. However, I also show results without these characteristics in order to examine the extent to which personality effects may be explained by income or education. Beyond that, models are stratified by SES indicators.

### *Confounding by family factors*

Previous research has demonstrated that family background may influence both personality (e.g. Jokela et al., 2017) and family formation processes (e.g. Kramarz et al., 2021). For instance, sociability is positively linked with maternal education, and negatively associated with sibling group size (Jokela et al., 2017). Furthermore, genetics may shape personality traits, at least to some extent (Penke et al., 2007; Penke & Jokela, 2016; Van Gestel & Van Broeckhoven, 2003).

With regards to family formation processes, Cools and Hart (2015) have found that males' fertility (probability of entering fatherhood, number of children) increases by each additional sibling. The positive association between number of siblings and own fertility appears to be stronger among firstborns compared to later born siblings (Morosow & Kolk, 2020). Kolk (2015), however, has found that the number of siblings does not have a causal effect on completed fertility in Sweden. Furthermore, higher birth order is negatively linked with completed fertility among Swedish women but not among Swedish males (Morosow & Kolk, 2020). Other studies suggest that there is no evidence of birth order effects on number of children (Murphy & Knudsen, 2002). Potential associations between personality and fertility

may weaken when controlling for shared background information since siblings reveal similar fertility patterns (Buyukkececi & Leopold, 2021; Dahlberg & Kolk, 2018; Kolk, 2015; Lyngstad & Prskawetz, 2010). These factors are captured using fixed effects models in my study, additionally.

## **Data and Variables**

### *Data*

My analyses are based on Swedish register data. Each registered member in Sweden receives a unique identification number, through which information from various registers can be linked. Marital behavior, fertility, and educational level have been collected in administrative civil registers. Tax registers provide information on income, and they also define cohabitations in my analyses. Each individual has to report the current address to the tax office, which is the most specific information on the residing area in the Swedish registers (Thomson & Eriksson, 2013). This address may relate to dwellings for one family, or more complex buildings, in which up to 1000 different households may reside (Thomson & Eriksson, 2013). Therefore, individuals may live under the same address but do not share a household (no cohabitation). However, if a man and a woman have a joint child together and are registered under the same property number, one can strongly assume cohabitation. This approach is in line with previous work by Thomson and Eriksson (2013).

Personality facets and cognitive skills come from military conscription data and are available between 1983-1997. All young men were obliged to take the military tests during this time. Information on siblings and family background were drawn from multigenerational registers. Only full siblings with same mothers and fathers were included in the within-family analyses (fixed effects). Fixed effects models control for unobserved heterogeneity between individuals regarding genetics, parental background or other shared information.

The analytical sample has been restricted to a relatively homogeneous group of men who were between 17-20 years of age at time of recruitment. This includes the vast majority of the male population (98%) from the birth cohorts 1963-1979. All men who left Sweden or died by age 39 have been excluded. At time of last observation (2018), males were between 39-55 years of age. This is a reasonable threshold for marriage and fertility analyses. After age 40, relative first-marriage risks are very low among Swedish men (Ohlsson-Wijk, 2014), and fertility

patterns do not change very much (Barclay & Kolk, 2020; Nisén et al., 2014). Additionally, robustness checks considering marriage/fertility by higher ages (45/50 and higher) were conducted. The analytical sample on marriage and fertility consists of 651,783 males. Sample sizes from dissolution models are smaller. Divorce models were run for males who ever got married by 2018 (390,352 men). Analyses on cohabitation based on joint childbearing (only non-married males) have been run for 129,823 men.

### *Outcomes*

I consider the effect of personality on several outcomes. First, I examine marital status by age 39 and higher (0 – “Never married”, 1 – “Ever married”). Second, I look at completed fertility by age 39 and higher as both the number of children (0-22) and childlessness (0 – “At least one child”; 1 – “Childless”). Third, divorce risks over time (event: 0 – “Not divorced”, 1 – “Divorced”) are examined for all married men. Finally, I run analyses on cohabitation dissolution risks over time based on males who live together with the mother of their child (event: 0 – “Not separated”, 1 – “Separated”).

### *Personality factors in Swedish registers*

My main explanatory variables are social maturity (SM) and emotional stability (ES). Both factors are available as scores from 1 (“Low”) to 5 (“High”) and have been collected for all men at the time of their recruitment. They are based on 20-30-minutes interviews by licensed psychologists (Ludvigsson et al., 2022). Psychologists are experts on personality with an educational degree (Lindqvist & Vestman, 2010). Furthermore, they obtained some training for their tasks in the military (Ludvigsson et al., 2022) and specific instructions for the interviews with the recruits (Lindqvist & Vestman, 2010). For instance, the psychologists were asked to focus on personality factors only, instead of the motivation for attending military service (Lindqvist & Vestman, 2010; Ludvigsson et al., 2022). This instruction shall address potential interview manipulations of the recruits, e.g. if they reject military service or more responsible army positions (Lindqvist & Vestman, 2010). These kinds of expertise are advantageous compared to self-reports that survey data is usually based on.

For the males of the considered birth cohorts (1963-1979), participation in the military conscription has been compulsory and only few males were not recruited, e.g. based on their

health status (Ludvigsson et al., 2022). The recruitment procedure has been identical for all males and consisted of several steps. The conscription test started with a cognitive test, in which different types of tasks must have been solved (Mönstringshandboken, 2021). Physical and cognitive skills have been tested, and towards the end of the conscription, the recruits were interviewed by psychologists (Mönstringshandboken, 2021).

The Swedish military searches for potential candidates for more responsible positions within the army (Larsson & Kallenberg, 2006; Ludvigsson et al., 2022). Almost one third of the recruits of each cohort were trained as officers in lower hierarchies that stay for approximately one year in the military (Grönqvist & Lindqvist, 2015). Previous research has shown that the personality of pilots is linked with training performance of crew members (Chidester et al., 1991). The Swedish military may aim for similar effects and desires certain personality facets and skills among its officers (Grönqvist & Lindqvist, 2015). For instance, only recruits with IQ scores of 5 or higher are considered for different officer positions (Grönqvist & Lindqvist, 2015). Furthermore, levels of SM and ES play a role (Larsson & Kallenberg, 2006). Social skills are needed in order to motivate individuals and serve as a companion alongside recruits during their military service (Larsson & Kallenberg, 2006). An important facet of social maturity is extraversion. This trait may be particularly useful for officers since extroverts typically like to be together with other people (Larsson & Kallenberg, 2006). They usually show self-confidence, talkative attitudes and an easy-going mind (Larsson & Kallenberg, 2006), which may help recruits to establish a confidential connection with the team leader. Trust from the recruits is one of the essential goals for officers since recruits may be more willing to take risks if they have a trustful and loyal relationship to their team leader (Grönqvist & Lindqvist, 2015). This may increase both their motivation and efficiency during military service. ES is the capability to control one's own emotions that may be particularly important in stressful situations within the military (Larsson & Kallenberg, 2006). Stressful situations require clear orders (Grönqvist & Lindqvist, 2015). Low scores on ES may indicate higher risks for negative emotions such as fear, anger or depression (Larsson & Kallenberg, 2006), which may also result in insecurity when taking decisions. The definition of ES from the military is somewhat linked to the most common psychological measures of ES (Larsson & Kallenberg, 2006).

More detailed information on Swedish military expectations towards officers and personality characteristics measured during the conscription tests can be found in Grönqvist & Lindqvist (2015) and Larsson & Kallenberg (2006). Furthermore, specific steps of the military

conscription are shown in Mönstringshandboken (2021) whereas Lindqvist & Vestman (2010) and Ludvigsson et al. (2022) provide more information on the interviews.

### *Control variables*

My analyses include further covariates. All models control for categorized and normally distributed cognitive skills (1 “Low” to 9 “High”), birth year (1963-1979), birth order, and sibling group size (including sisters). Additionally, I compare models with and without SES indicators in order to examine the role of SES. Indicators are highest educational level obtained by age 39 (1 “No Basic Education”, 2 “Primary”, 3 “Lower Secondary”, 4 “Upper Secondary”, 5 “Post-Secondary”, 6 “Tertiary”, 7 “Doctor”) and income (cumulated by age 39). Beyond that, education and income serve as stratification factors. Marriage and divorce models also control for parenthood status (0 “No Parent”, 1 “Parent”) whereas civil status (“Single”, “Cohabited”, “Married”, “Divorced/Widowed”) serves as another potential mediator and stratification factor in fertility analyses.

### *Statistical models*

I applied linear probability models (LPM) in order to examine marital status by age 39 and higher. The LPM for my analyses take the following forms:

$$Pr(Y_i = 1|X_i = x_i) = \beta_0 + \beta_1 social_i + \beta_2 emotion\_stable_i + \beta_3 cognitive_i + \beta_4 birth\_year_i + \beta_5 birth\_order_i + \beta_6 sibling\_group\_size_i$$

(1)

$$Pr(Y_i = 1|X_i = x_i) = \beta_0 + \beta_1 social_i + \beta_2 emotion\_stable_i + \beta_3 cognitive_i + \beta_4 birth\_year_i + \beta_5 birth\_order_i + \beta_6 sibling\_group\_size_i + \beta_7 \ln(income)_i + \beta_8 education_i + \beta_9 parent$$

(2)

Marital status, the outcome of equations (1) and (2), is binary coded. In the LPM, it can be understood as probability of getting married, which depends on a set of variables. The intercept  $\beta_0$  describes the baseline value of the model. Social measures the SM, and emotion\_stable refers to the ES of the young males at time of military recruitment. Cognitive skills are included as categorical variable cognitive. Furthermore, I control for birth cohorts (birth\_year) in the

models. The covariate *birth\_order* provides information on the birth order among all siblings in the family (brothers and sisters), whereas *sibling\_group\_size* shows the total number of siblings, including the individual. Sibling group size has been excluded as covariate from the fixed effects analyses since this information is shared between brothers, which is captured by these models. Equation (2) includes potential mediators, additionally. Income means the cumulated income by age 39 and I took its standardized logarithm. Education represents the highest educational level by age 39. Furthermore, I consider whether the male has ever entered parenthood (parent) or not.

Offspring counts have been analyzed by Poisson regression models. Formally, this approach can be described as follows:

$$\log(E[Y_i|X_i]) = \beta_0 + \beta_1 social_i + \beta_2 emotion\_stable_i + \beta_3 cognitive_i + \beta_4 birth\_year_i + \beta_5 birth\_order_i + \beta_6 sibling\_group\_size_i \quad (3)$$

$$\log(E[Y_i|X_i]) = \beta_0 + \beta_1 social_i + \beta_2 emotion\_stable_i + \beta_3 cognitive_i + \beta_4 birth\_year_i + \beta_5 birth\_order_i + \beta_6 sibling\_group\_size_i + \beta_7 \log(income)_i + \beta_8 education_i + \beta_9 married_i \quad (4)$$

The logarithm of the expected number of children *Y* for each individual *i* depends on the vector of explanatories *X* of each individual. Control variables are identical as in equations (1) and (2) except parenthood, which was replaced by marital status. Again, sibling group size was eliminated as covariate from fixed effects models since these require variation in all covariates by default. Analyses on childlessness are based on LPM such as shown in equations (1) and (2), including covariates from equations (3) and (4).

Risks of partnership dissolution (divorce and cohabitation dissolution) were examined using Cox Proportional Hazard (Cox PH) models. The underlying time scales are time since marriage and time since first childbirth within an assumed cohabitation, respectively. The observation ends with time at dissolution or the end of the study (2018) – whichever comes first. The Cox PH model censors the data since not all individuals have experienced the event of interest by the end of observation time. The formal models are shown in equations (5) and (6):

$$h(t|x_i) = h_0(t) \exp\{\beta_0 + \beta_1 social_i + \beta_2 emotion\_stable_i + \beta_3 cognitive_i + \beta_4 birth\_year_i + \beta_5 birth\_order_i + \beta_6 sibling\_group\_size_i\} \quad (5)$$

$$h(t|x_i) = h_0(t)exp\{\beta_0 + \beta_1social_i + \beta_2emotion\_stable_i + \beta_3cognitive_i + \beta_4birth\_year_i + \beta_5birth\_order_i + \beta_6sibling\_group\_size_i + \beta_7\ln(income)_{i,t-1} + \beta_8education_{i,t-1} + \beta_9parent_{i,t-1}\} \quad (6)$$

The hazard  $h$  on each time point  $t$  depends on the vector of independent variables  $x$  for each individual  $i$ . It is the product of the baseline hazard  $h_0$  (time-variant) and the exponentiated sum of the estimated intercept ( $\beta_0$ ) and the independent variables  $x$ , which are multiplied by the corresponding coefficients  $b$ . The set of explanatories is identical as in equations (1) and (2) above. However, education, income, and parenthood were included as both time-varying and lagged variables (i.e. information from year  $t-1$ ). Piecewise-constant hazard models may also be applied. These models assume a constant risk of experiencing the event (dissolution) within a certain time interval (one year). This risk can change across time intervals. However, Cox PH models allow me to stratify the calculations by sibling groups so that brothers can be compared to each other. Additional analyses have shown that piecewise-constant hazard models reveal similar patterns as the Cox PH models for the between-family analyses.

## Results

### *Descriptives*

Among men from birth cohorts 1963-1979, 50.54% have never been married by age 39, and 49.46% have ever been married. About one fifth (20.64%) stayed childless, 14.76% received one child, 42.81% two, and 16.71% three children. Both personality factors follow a relatively normal distribution with largest numbers on the mid-score 3 (SM: 44.73%; ES: 49.43%). The group of missing values is relatively large for both SM (19.58%) and ES (19.65%). Most recruits scored 4 (15.35%), 5 (23.64%), or 6 (16.62%) on cognitive skills. The majority of my sample obtained a lower secondary (31.18%), upper secondary (22.85%), or tertiary degree (21.17%). Further information is shown in Table A1 in the Appendix.

Table 1 shows important descriptive statistics of my different analytical samples (marriage/fertility, divorce, cohabitation dissolution). Since marriage analyses focus on males who have been married by age 39 and higher (i.e. 39-55), the proportion of married males is larger than the 49.46% of the men who have ever been married by age 39. By age 39 and higher, 59.06% have ever been married, and this probability increases with higher scores of SM and ES. The overall offspring count average in my analytical sample is 1.73. This value varies



between 1.37 and 2.03 by SM scores, with higher SM showing higher fertility. Furthermore, males with lower scores on SM are more likely to stay without children (e.g. 37% among males with score 1) than males with highest SM scores (e.g. 10% among men with score 5). Higher SM scores also show higher levels of IQ, education, income and a higher probability of having ever been married. Similar patterns emerge for ES. Furthermore, partnership dissolution risks decrease over SM and ES scores, as shown in the bottom part of Table 1.

Table 1: Mean values according to SM and ES

| <b>Factor</b> | <b>Married</b> | <b># Children</b> | <b>Childlessness</b> | <b>Cogn. Ability</b> | <b>Education</b> | <b>Inc. Dec.</b> | <b>N</b> |
|---------------|----------------|-------------------|----------------------|----------------------|------------------|------------------|----------|
| <i>SM</i>     |                |                   |                      |                      |                  |                  |          |
| Missing       | 0.59           | 1.71              | 0.22                 | 4.88                 | 3.97             | 5.18             | 127,630  |
| 1             | 0.38           | 1.37              | 0.37                 | 3.15                 | 3.22             | 3.49             | 8,290    |
| 2             | 0.46           | 1.48              | 0.32                 | 3.97                 | 3.58             | 4.47             | 77,430   |
| 3             | 0.58           | 1.72              | 0.20                 | 5.05                 | 4.08             | 5.56             | 291,519  |
| 4             | 0.69           | 1.90              | 0.14                 | 5.98                 | 4.71             | 6.35             | 135,715  |
| 5             | 0.75           | 2.03              | 0.10                 | 6.60                 | 5.11             | 7.07             | 11,199   |
| <i>ES</i>     |                |                   |                      |                      |                  |                  |          |
| Missing       | 0.59           | 1.71              | 0.22                 | 4.88                 | 3.97             | 5.18             | 128,046  |
| 1             | 0.42           | 1.44              | 0.33                 | 3.53                 | 3.46             | 3.90             | 10,341   |
| 2             | 0.48           | 1.52              | 0.30                 | 4.18                 | 3.71             | 4.66             | 87,545   |
| 3             | 0.59           | 1.73              | 0.20                 | 5.13                 | 4.13             | 5.60             | 322,200  |
| 4             | 0.70           | 1.92              | 0.13                 | 6.06                 | 4.77             | 6.54             | 96,837   |
| 5             | 0.74           | 2.03              | 0.10                 | 6.62                 | 5.12             | 7.25             | 6,814    |
| <i>Total</i>  | 0.59           | 1.73              | 0.21                 | 5.08                 | 4.14             | 5.52             | 651,783  |

*Divorce Risks*

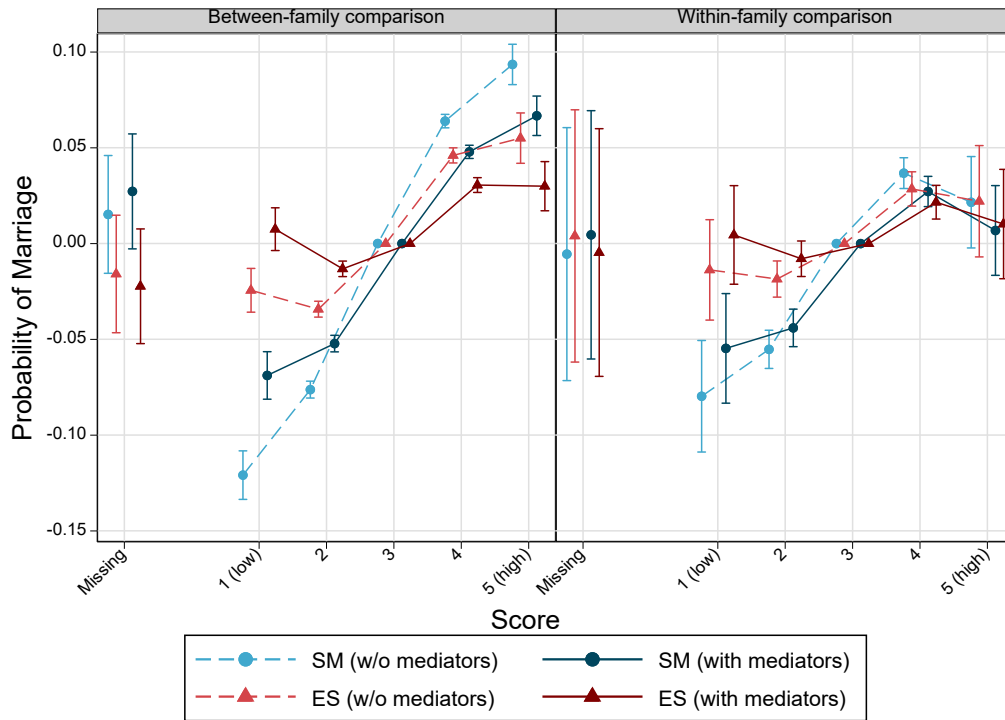
*Cohabitation Dissolution*

|              | <b>Person-time</b> | <b>Events</b> | <b>Rate</b> | <b>Person-time</b> | <b>Events</b> | <b>Rate</b> |
|--------------|--------------------|---------------|-------------|--------------------|---------------|-------------|
| <i>SM</i>    |                    |               |             |                    |               |             |
|              | <b>(months)</b>    |               |             | <b>(months)</b>    |               |             |
| Missing      | 11,836,138         | 21,346        | 0.002       | 288,605            | 10,619        | 0.037       |
| 1            | 353,389            | 1,263         | 0.004       | 14,275             | 868           | 0.061       |
| 2            | 4,598,812          | 11,384        | 0.002       | 161,686            | 7,526         | 0.047       |
| 3            | 25,617,130         | 41,989        | 0.002       | 707,342            | 23,734        | 0.034       |
| 4            | 14,862,720         | 21,232        | 0.001       | 276,818            | 8,491         | 0.031       |
| 5            | 1,328,600          | 1,869         | 0.001       | 18,294             | 572           | 0.031       |
| <i>ES</i>    |                    |               |             |                    |               |             |
| Missing      | 11,867,411         | 21,412        | 0.002       | 289,617            | 10,646        | 0.037       |
| 1            | 510,086            | 1,597         | 0.003       | 19,025             | 1,076         | 0.057       |
| 2            | 5,535,766          | 13,169        | 0.002       | 180,055            | 8,109         | 0.045       |
| 3            | 29,215,193         | 47,036        | 0.002       | 770,352            | 25,825        | 0.034       |
| 4            | 10,683,985         | 14,776        | 0.001       | 196,570            | 5,792         | 0.029       |
| 5            | 784,348            | 1,093         | 0.001       | 11,401             | 362           | 0.032       |
| <i>Total</i> | 58,596,789         | 99,083        | 0.002       | 1,467,020          | 51,810        | 0.035       |

### *Personality and marriage*

SM and ES are positively linked with the probability to get married by age 39 and higher (Fig. 2). Without potential mediators (income, education, parenthood), males with highest score on SM (5) show an almost 10% higher probability to enter marriage compared to males with the reference score of 3, holding all other covariates constant. This is an increase of approximately 15.8% compared to the baseline probability (59%). Contrary, men with lowest SM (1) are 12% less likely to get married by age 39 and higher, which is a reduction of ca. 20.5% compared to the baseline probability in the entire sample. Regarding ES, males with low scores (1-3) do not show very different associations with the probability of getting married. The coefficients of score 1 (-0.02) and 2 (-0.03) are relatively small. Individuals with ES scores 4 and 5 are more likely to enter marriage (coefficients approximately 0.05). Associations attenuate when income and education are included in the models. However, patterns remain although correlations between both personality factors and SES indicators are distinct (Fig. A1 and A2). When brothers are compared to each other (within-family comparison) the magnitudes decrease slightly but, again, the general patterns persist. Results do not change very much across models with and without IQ as can be seen in the Appendix (Fig. A3 and A4).

Figure 2: The relationship between personality factors measured at ages 17-20 and the probability to get married by age 39 amongst Swedish men born 1963-1979. Linear probability models, error bars are 95% confidence intervals



Note: Models without mediators control for cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size. Models with mediators include income, education, and parental status additionally.

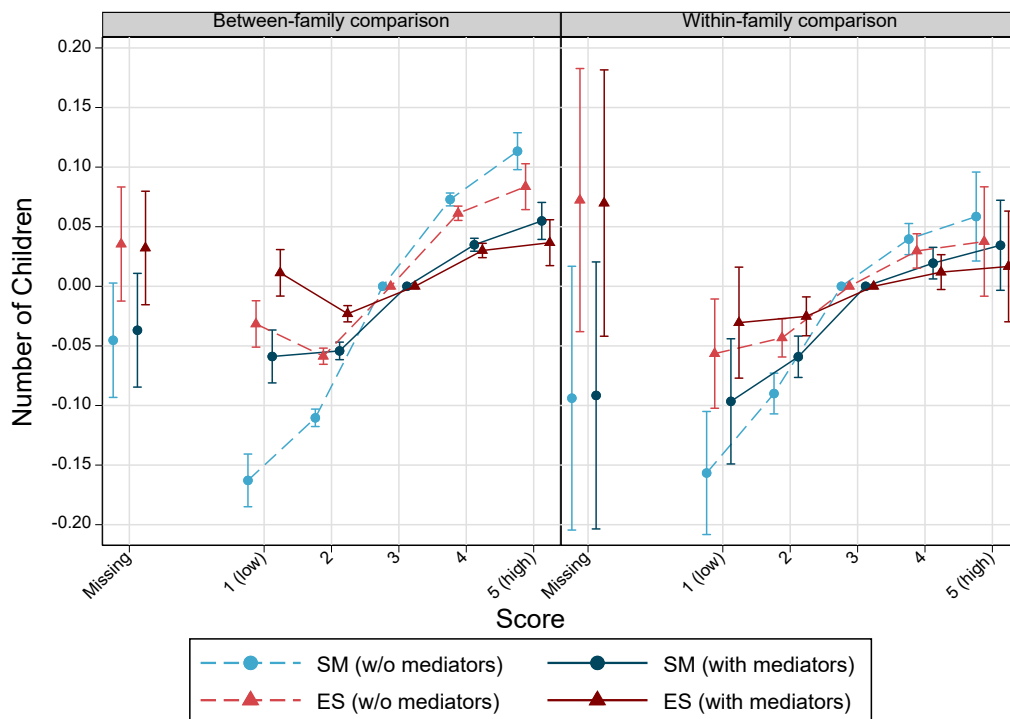
Personality-marriage associations were further explored by stratifying for income deciles (Fig. A5 in Appendix). Findings illustrate that the positive relationship between SM and marriage does not change much across income groups. Regarding ES, the curves are relatively flat so that only a slightly positive association within any income decile can be detected – if at all. Furthermore, SM and ES are positively associated with marriage, particularly among high-educated men (Fig. A6 and A7). ES magnitudes are somewhat smaller.

### Personality and fertility

Findings from Poisson regression models indicate that SM and ES are positively associated with the number of children (Fig. 3). Models without mediators reveal stronger positive associations with fertility for both SM and ES. For instance, men with lowest SM scores obtain 0.16 fewer children on average by age 39 and higher compared to the ones who scored with 3,

conditioned on all other covariates being fixed. However, the magnitude of this coefficient turned to -0.06 when income, education and marital status were included. Compared to the overall average of offspring counts in the total population (1.73), this means a reduction of ca. 3.5%. Patterns regarding ES are similar but at a lower level. Comparison between brothers (within-family analyses) do not change the results much.

Figure 3: The relationship between personality factors measured at ages 17-20 and number of children by age 39 amongst Swedish men born 1963-1979. Poisson regression models, error bars are 95% confidence intervals

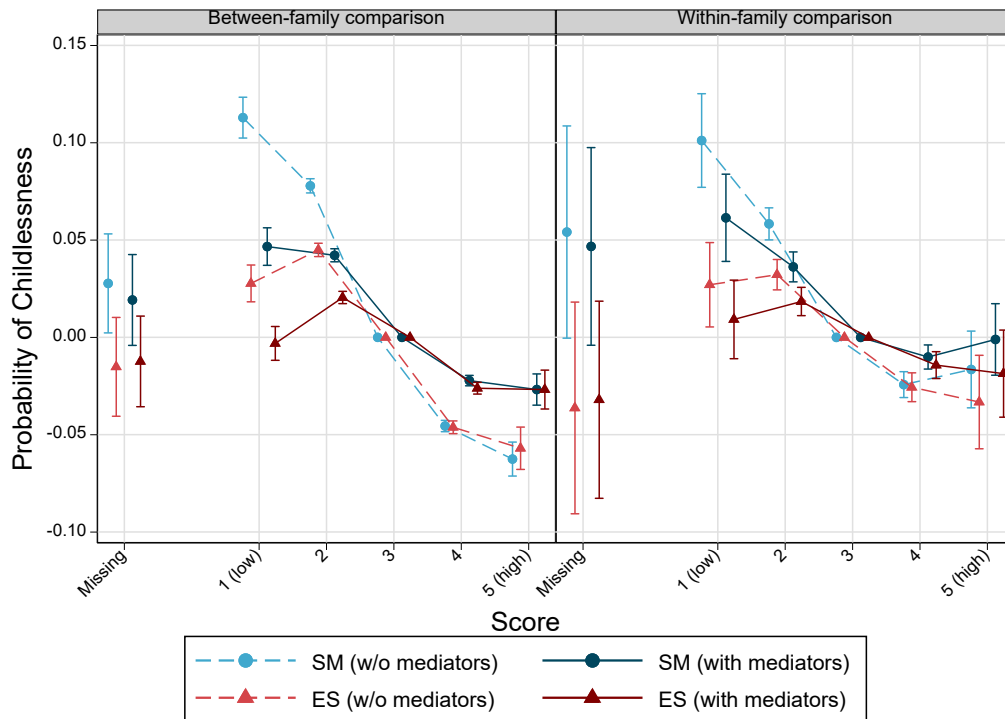


*Note: Models without mediators control for cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size. Models with mediators include income, education, and marital status additionally.*

Figure 4 depicts the negative association between both personality factors and childlessness. For instance, a young male with score 1 on SM shows a ca. 5% higher probability to remain childless by age 39 and higher (after including potential mediators), compared to another young male with SM score of 3 (given that all other covariates are kept constant). This represents a 22% higher probability than the baseline level (0.21) to stay without children. In contrast, a male with SM score 5 shows a ca. 2.7% lower probability to remain childless, which means an approximately 13% lower likelihood compared to the overall probability of the total sample

(0.21). Results for ES reveal similar patterns but to a lower extent, in particular among lower scores. Findings for both personality factors persist in brother comparisons despite higher statistical uncertainties. Additionally, coefficients from models without SES indicators and marital status are about twice as large as the findings from the full models, suggesting an important mediating role SES and marital status for the personality-childlessness link. Contrary, models with and without IQ reveal similar estimates as can be seen in Fig. A8 and A9 in the Appendix.

Figure 4: The relationship between personality factors measured at ages 17-20 and childlessness by age 39 amongst Swedish men born 1963-1979. Linear probability models, error bars are 95% confidence intervals



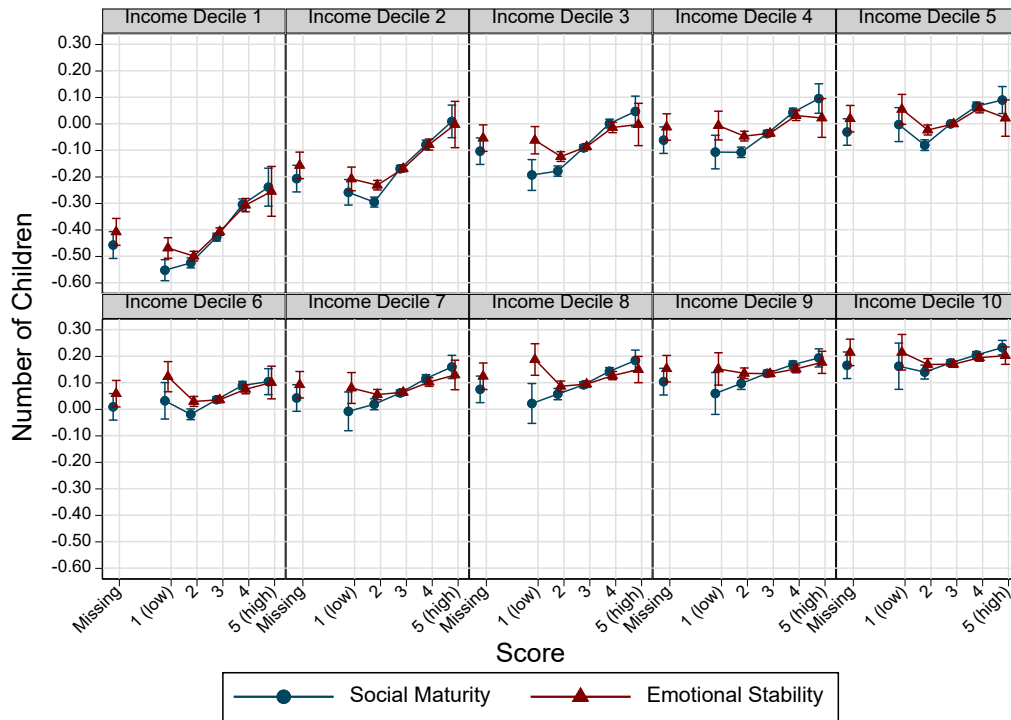
Note: Models without mediators control for cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size. Models with mediators include income, education, and marital status additionally.

Figure 5 illustrates that the positive association between SM and offspring count varies across income deciles, with lowest income deciles showing steepest curves. For instance, a male from income decile 1 with SM score 1 gets on average about 0.55 fewer children compared to the reference group (SM score 3, income decile 5). This means a reduction of ca. 32% compared to the average number of children in the total sample (1.73). A man with highest SM score (5)

in the lowest income group gets ca. 0.24 fewer children, which is a reduction of about 14% compared to the average offspring count (1.73). In the highest income decile (10), this relationship has flattened (coefficients between 0.14 and 0.23, i.e. 8-13% more children than the baseline level of the total sample).

Generally, fertility levels increase across income groups. Whereas even the highest scores on SM within income decile 1 are linked with fewer children (-0.24) compared to the reference group (income decile 5, SM score 3), males from the highest income group consistently reveal more children (0.14-0.23) on average by age 39 and higher – independent from their SM scores. Similar patterns can be found for ES in the lowest income deciles (1 and 2). In higher income groups (deciles 3-10), however, no clear associations can be detected. Findings regarding childlessness by age 39 and higher show similar patterns (Fig. A10). Furthermore, fixed effects models (within-family analyses) have been conducted but did not reveal large differences compared to between-family considerations (Fig. A11-A14 in the Appendix). In addition to stratification by income, I have run models including interactions between both personality factors and the other potential mediators (education, marital status). Findings are shown in Fig. A15-A18. Results indicate particularly strong positive associations among highly-educated and never married men. Patterns are slightly more distinct for associations with respect to SM than to ES.

Figure 5: The relationship between personality factors measured at ages 17-20 and number of children by age 39 amongst Swedish men born 1963-1979. Poisson regression models by income deciles, error bars are 95% confidence intervals



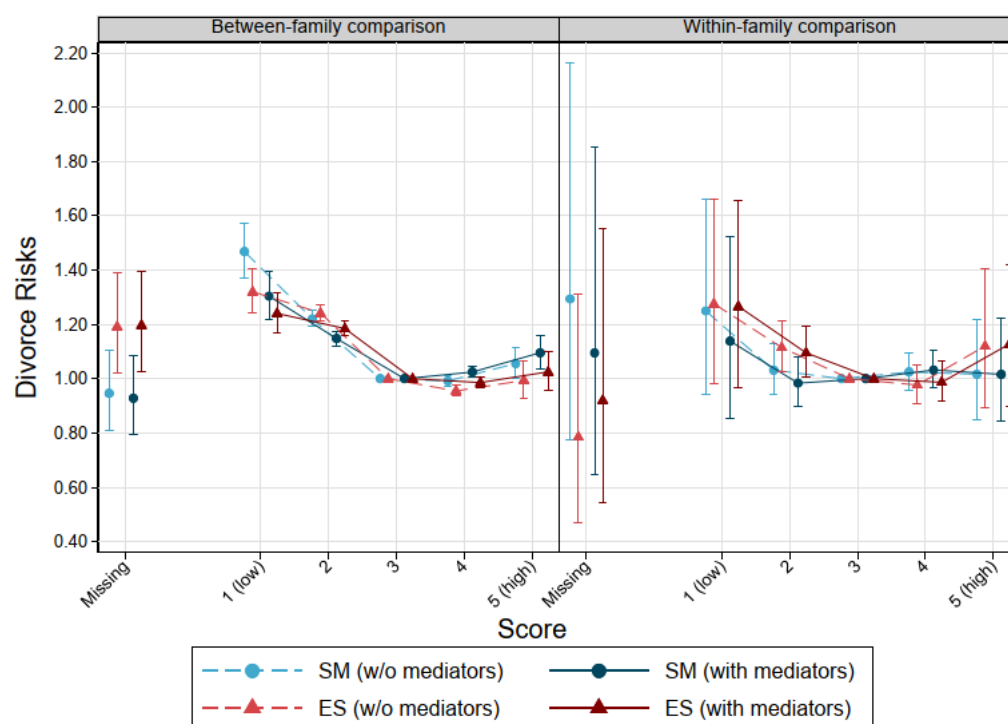
Note: Models control for cognitive abilities, birth year, birth order, sibling group size.

### Personality and divorce

Figure 6 depicts the association between SM/ES and divorce risks. Considering between-family analyses, married men with low scores (1 and 2) on SM and ES show higher divorce risks compared to the reference group (score 3). For instance, males who received score 1 on SM at time of military conscription and entered marriage before age 39, show a more than 45% higher risk of getting divorced by age 39 and higher (all other covariates held constant). Including income, education and parental status reduces this risk to 30%. High scores on both SM and ES do not differ significantly from the reference group (score 3). Similar patterns emerge when brothers are compared to each other (Fig. 6). However, statistical uncertainty increases.



Figure 6: The relationship between personality factors measured at ages 17-20 and divorce risks by age 39 amongst Swedish men born 1963-1979. Cox PH models, error bars are 95% confidence intervals



Note: Models without mediators control for cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size. Models with mediators include income, education, and parental status additionally.

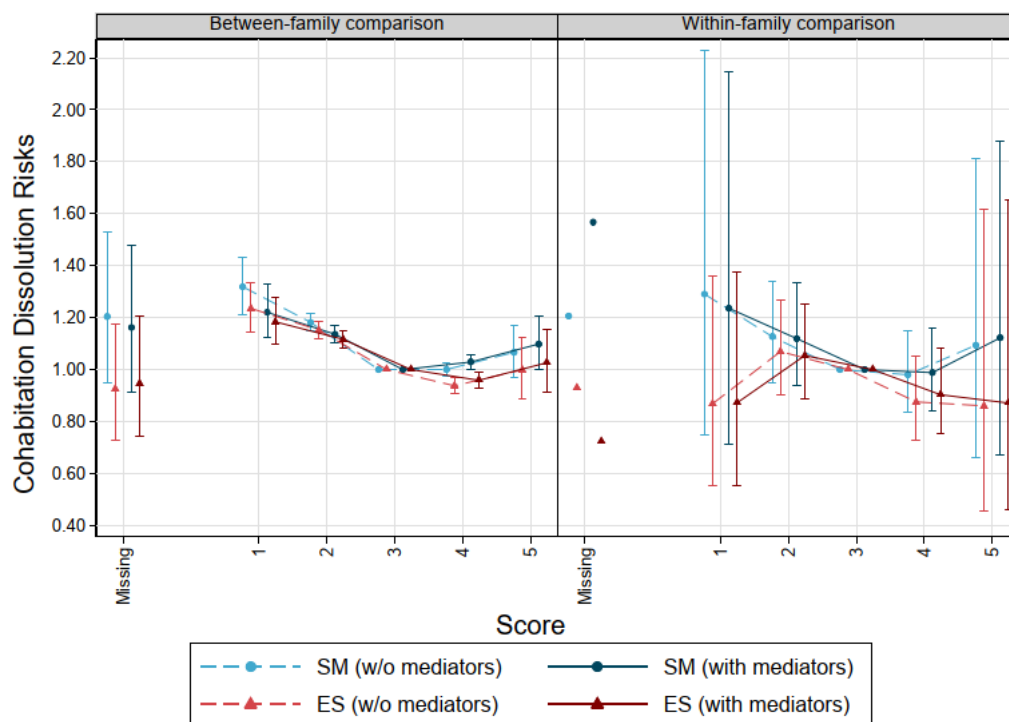
Figures A19-A21 in the Appendix show stratifications by income and education groups. Estimates suggest a negative association between both personality factors and divorce risks in lower income deciles but no clear trends within highest income groups. Additionally, no clear patterns across educational groups emerge. Whereas estimates from between-family comparisons demonstrate U-shaped (SM + low/medium education) or negative associations (SM + high education, ES + all educational levels), patterns from sibling comparisons become relatively unclear based on large statistical uncertainty.

### Personality and cohabitation dissolution

I also examine the association between both personality factors and cohabitation dissolution for individuals who live together with a partner based on joint parenthood (marriages excluded). Results are shown in Fig. 7. Low scores on SM and ES are linked with higher dissolution risks. Including SES indicators (income, education) attenuates this association to

some extent. Males with lowest personality scores show a 22% (SM) and 18% (ES) higher risk of experiencing cohabitation dissolution, compared to the reference group (score 3, all covariates fixed). These risks decrease in scores 2 and 3. Risks among ES scores 3, 4, and 5 do not differ much but SM scores of 4 and 5 show increasing dissolution risks. Males with SM score 5 show an almost 10% higher separation risk compared to the reference (score 3). Trends are similar in brother comparisons for SM, but ES does not show clear patterns, and statistical uncertainty is comparatively high.

Figure 7: The relationship between personality factors measured at ages 17-20 and cohabitation dissolution risks by age 39 amongst Swedish men born 1963-1979. Cox PH models, error bars are 95% confidence intervals



Note: Models without mediators control for cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size. Models with mediators include income and education additionally. Point estimates or confidence intervals that are not shown are left out for visualization purposes here. Estimates are available upon request.

Stratification by education indicates no differences across educational levels for both personality factors. However, confidence intervals are relatively large, in particular for the fixed effects analyses. Income stratifications do not reveal clear patterns. Whereas a negative trend can be observed within lowest income groups, this association attenuates in middle

income deciles before suggesting a U-shaped pattern in income decile 8 and 9. The highest income group (decile 10) suggests strong negative associations between personality factors and cohabitation dissolution. Corresponding graphs are shown in the Appendix (Fig. A22-A24).

### *Robustness checks*

I have run several robustness checks. First, different age thresholds (45 and 50) were tested for both marriage (Fig. A25-A26) and fertility analyses (Fig. A27-A30). Patterns do not change but statistical power decreases. Additionally, previous research suggests that personality-marriage associations may change across birth cohorts, e.g. the positive relationship between extraversion and marriage has been found for older cohorts of German men but not among younger ones (Lundberg, 2012). However, additional analyses on Swedish cohorts have not shown these patterns in my study (Fig. A31 and A32). Furthermore, logistic regression models were run for analyses on binary-coded fertility and marriage outcomes. Coefficients from models with and without potential mediators (income, education, civil status/parenthood) are shown in Fig. A33 and A34. Patterns are consistent with findings from LPM that are shown in Fig. 2 and Fig. 4 above.

## **Discussion**

### *Conclusions*

This study has examined the prospective association between personality factors from younger ages (SM and ES) and family formation processes by mid-adulthood among males using Swedish register data. Findings support most of my hypotheses. As expected, my analyses reveal that SM is positively related to the probability of getting married by age 39 and higher. ES shows a less clear pattern. Whereas lower scores on ES (1-2) are not linked with higher or lower marriage probabilities, higher scores are associated with a higher likelihood of getting married.

Regarding fertility, positive relationships with personality factors have been found, as hypothesized based on previous research. SM and ES are positively linked with offspring counts and negatively associated with the probability of remaining childless by age 39 and higher among males in Sweden. Correlations can be described as (reversed) S-shaped patterns, and curves are steeper for SM compared than for ES. Stratification analyses have revealed that

these patterns are particularly distinct for males in lower income deciles, higher educational levels and those who have never been married. These findings suggest that SES indicators and marital status may play an important mediating role for the personality-fertility link. Similar associations can be found in brother comparisons.

Additionally, my findings indicate that lower scores on both SM and ES are associated with higher divorce risks by mid-adulthood. However, higher scores on both factors are not linked with divorce risks. These findings are partly in line with my hypothesis on ES, but contradict my expectation regarding SM. Previous research has already suggested mixed findings regarding the association between personality and divorce (Bleidorn et al., 2018). Extraversion (as important facet of SM) is positively associated with life satisfaction in longer term after getting married among males (Boyce et al., 2016), which may influence marital stability and divorce. Furthermore, previous findings indicate that males become more introvert and more emotionally stable after marriage, which also affects marital satisfaction (Lavner et al., 2018), and therefore marital stability. However, the data do not allow me to examine potential changes in SM or ES. Further information on potential pathways between personality and divorce via marital satisfaction can be found in Solomon and Jackson (2014). Previous evidence suggests that associations between divorce and extraversion (positive) as well as ES (negative) are relatively robust across marriage cohorts (Boertien & Mortelmans, 2018).

With regards to cohabitation dissolution, similar patterns emerge. Low scores on both traits are linked with higher separation risks among couples who live in the same geographical unit and have a child together. However, curves indicate a U-shape pattern, at least for SM so that higher scores of SM are also linked with higher dissolution risks. Trends persist in within-family comparisons but with larger statistical uncertainty.

### *Strengths and limitations*

My study reveals some weaknesses and strengths. One important limitation relates to the focus on males since data for women was not available. In line with this, I could only compare brothers to each other but not sisters. Evidence from previous research suggests that different ties may affect individuals' family formation processes differently. For example, older brothers may influence women's fertility differently than older sisters do (Sear et al., 2003).

Another limitation of my study refers to military interests when measuring personality. As discussed in the manuscript, personality measures from the military differ from those that are commonly used in demographic/psychological research. Additionally, a substantial portion of the men (approximately 20%) has not received SM or ES scores. Additional bivariate analyses between IQ (or physical fitness) and personality assessments do not reveal clear patterns that may explain why one fifth of the men has not been assessed according to their SM and ES.

Personality may change when longer time periods are considered (Harris et al., 2016; Hopwood & Bleidorn, 2018) although some evidence indicates a relatively high stability of personality over life course (Damian et al., 2015; Lucas & Donnellan, 2011). Military measures come from interviews and these usually produce less stable personality levels than self-reports from questionnaires (Hopwood & Bleidorn, 2018). Therefore, my analyzed association can only be prospective but not causal. However, evidence from previous studies supports the hypothesis that personality may predict certain life events such as relationship status (Neyer & Asendorpf, 2001), and SES indicators (Damian et al., 2015; Leikas & Salmela-Aro, 2015) but that life events do not lead to large personality changes (Costa Jr. et al., 2000; Neyer & Asendorpf, 2001), and in particular not in the long-term (Allemand et al., 2015).

On the other hand, this study also reveals strengths. The power of personality has often been underrated in demographic research although personality may even show stronger associations with family-related outcomes (e.g. divorce) than SES indicators do (Roberts et al., 2007). Swedish register data allow me to link personality factors from young ages to demographical events on a population level. My analyses obtain additional power due to sibling comparisons, in which I can control for unobserved but constant heterogeneity such as parental background or childhood experiences.

Register data usually face fewer selection problems than most surveys. Survey participation is voluntary and can be rejected for different reasons. Non-attending individuals may show specific patterns regarding fertility or marital behavior. For instance, disadvantaged males might be less likely to participate in a survey, and to get offspring or to marry. My analyses, however, include the vast majority of Swedish males from birth cohorts 1963-1979 – also men who would reject survey participation. Therefore, I can assume less bias in my findings compared to studies using survey data. Although there is a non-neglectable proportion of missing values for the personality measures (SM: 19.58%; ES: 19.65%), I still can include these individuals in my analyses since family formation outcomes are available. Males with

missing values on SM are slightly more likely to marry, but show lower fertility (fewer children, higher childlessness) and higher cohabitation dissolution risks compared to the reference group (SM score 3). Divorce risks do not differ from men with SM scores of 3. Regarding missing values on ES, opposite patterns can be observed (less likely to get married, more children, lower childlessness). Individuals without information on ES show also higher divorce (but not cohabitation dissolution) risks, compared to reference group of ES score 3.

### *Implications and Outlook*

My study has shown that personality factors matter for family formation processes (marriage, fertility, dissolution). Magnitudes vary between outcomes and personality factors but are generally higher for SM. Marriage models reveal SM coefficients between -0.06 (score 1, reference group: score 3) and 0.07 (score 5). There are, therefore, comparable with educational gradients, from which only the doctoral degree shows stronger associations with marriage (coefficient: 0.13). However, SM coefficients are generally smaller than income estimates (between -0.23 and 0.13). Similar conclusions can be drawn with respect to fertility (offspring counts, childlessness). Analyses on dissolution risks reveal particular strong impact of lower personality scores on dissolution and cohabitation separation. For instance, the lowest score (1) is linked with a 30% (SM) and 24% (ES) higher risk to get divorced (compared to score 3). Higher risks can only be detected in extremely low incomes (decile 1: 57% higher risk) or across highest and lowest educational levels.

My findings have a number of practical implications, e.g. with regards to mating processes and health outcomes. High scores on SM and ES may be beneficial on the partner market, which results in inequalities in entering stable partnerships. Some males may struggle with entering stable partnership unions, and others may have several in the life course. My findings support these hypotheses, showing that males with higher ES and SM scores are more likely to get married. Partnership status is also linked with health outcomes. Previous studies have demonstrated that singles show higher mortality risks (e.g. Roelfs et al., 2011) and worse well-being (e.g. Wright & Brown, 2017), whereas partnered individuals show better mental health (e.g. Willits et al., 2004). This means that men with lower scores on SM and ES, who are less likely to get married and more likely to experience partnership dissolution, may also suffer from worse health.

Similar effects may be hypothesized with regards to fertility. Males with higher ES and SM scores are more likely to enter parenthood and to get more children. Since they also show advantages on the marriage market, they may benefit from opportunities to reproduce themselves (i.e. entering a stable relationship). From an evolutionary perspective, findings on personality and fertility are of particular interest since certain personality combinations may become extinct in the long run. Low scores on SM are linked with higher childlessness, which may indicate that higher scores on SM are desired for partnering and parenthood. Therefore, inequalities with regards to personality facets need to be addressed in future research that examines fertility and marital behavior.

More research is still needed on the prospective association between personality and family formation. The Swedish military provides information on other factors such as intensity or psychological energy, which may play an important role for marital behavior and fertility. Additionally, it will be interesting to examine the link between personality and family formation among women since previous research indicates that personality plays an important role for family formation among females as well (Jokela, 2012; Jokela et al., 2011). The personality-family formation link may also be studied in other cultural contexts, in particular regarding the positive association between SES and fertility, which is a specific characteristic of Nordic countries.

## **Acknowledgements**

I would like to thank all who have supported me in writing this paper. I am particularly grateful for the great support that I have received from my supervisor Kieron Barclay whose suggestions have improved the quality of this study essentially. Furthermore, I thank Mikko Myrskylä and Gunnar Andersson as my supervisors/advisors who supported me in realizing this project in various ways. I am particularly grateful for receiving access to Swedish register data via Stockholm University and, in particular, Prof. Martin Hällsten. Special thanks go also to my colleagues at Stockholm University (Sweden) – Helen Eriksson, Martin Kolk, Elizabeth Thomson, and others – who provided great support regarding any type of data issues. I am also very grateful for the great and helpful comments from my colleagues at the Max Planck Institute for Demographic Research in Rostock (Germany).

## References

- Ajzen, I., & Klobas, J. (2013). Fertility intentions: An approach based on the theory of planned behavior. *Demographic Research*, 29, 203–232. <https://doi.org/10.4054/DemRes.2013.29.8>
- Allemand, M., Hill, P. L., & Lehmann, R. (2015). Divorce and personality development across middle adulthood: Divorce and personality development. *Personal Relationships*, 22(1), 122–137. <https://doi.org/10.1111/pere.12067>
- Allen, M. S. (2019). The Role of Personality in Sexual and Reproductive Health. *Current Directions in Psychological Science*, 28(6), 581–586. <https://doi.org/10.1177/0963721419862293>
- Alvergne, A., Jokela, M., & Lummaa, V. (2010). Personality and reproductive success in a high-fertility human population. *Proceedings of the National Academy of Sciences*, 107(26), 11745–11750. <https://doi.org/10.1073/pnas.1001752107>
- Andersson, G., & Scott, K. (2007). Childbearing dynamics of couples in a universalistic welfare state: The role of labor-market status, country of origin, and gender. *Demographic Research*, 17, 897–938. <https://doi.org/10.4054/DemRes.2007.17.30>
- Asendorpf, J. B., & Wilpers, S. (1998). Personality effects on social relationships. *Journal of Personality and Social Psychology*, 74(6), 1531–1544. <https://doi.org/10.1037/0022-3514.74.6.1531>
- Ashton, M. C., & Lee, K. (2005). Honesty-Humility, the Big Five, and the Five-Factor Model. *Journal of Personality*, 73(5), 1321–1354. <https://doi.org/10.1111/j.1467-6494.2005.00351.x>
- Avison, M., & Furnham, A. (2015). Personality and voluntary childlessness. *Journal of Population Research*, 32(1), 45–67. <https://doi.org/10.1007/s12546-014-9140-6>
- Baizán, P., Aassve, A., & Billari, F. C. (2003). The Interrelations Between Cohabitation, Marriage and First Birth in Germany and Sweden. *Population and Environment*, 25(6), 531–561. <https://doi.org/10.1023/B:POEN.0000039064.65655.3b>
- Balbo, N., Billari, F. C., & Mills, M. (2013). Fertility in Advanced Societies: A Review of Research: La fécondité dans les sociétés avancées: un examen des recherches. *European Journal of Population / Revue Européenne de Démographie*, 29(1), 1–38. <https://doi.org/10.1007/s10680-012-9277-y>



- Barclay, K., & Kolk, M. (2020). The Influence of Health in Early Adulthood on Male Fertility. *Population and Development Review*, 46(4), 757–785. <https://doi.org/10.1111/padr.12357>
- Bihagen, E., Nermo, M., & Stern, C. (2013). Class Origin and Elite Position of Men in Business Firms in Sweden, 1993-2007: The Importance of Education, Cognitive Ability, and Personality. *European Sociological Review*, 29(5), 939–954. <https://doi.org/10.1093/esr/jcs070>
- Bleidorn, W., Hopwood, C. J., & Lucas, R. E. (2018). Life Events and Personality Trait Change: Life Events and Trait Change. *Journal of Personality*, 86(1), 83–96. <https://doi.org/10.1111/jopy.12286>
- Boertien, D., & Mortelmans, D. (2018). Does the relationship between personality and divorce change over time? A cross-country comparison of marriage cohorts. *Acta Sociologica*, 61(3), 300–316. <https://doi.org/10.1177/0001699317709048>
- Boertien, D., von Scheve, C., & Park, M. (2017). Can Personality Explain the Educational Gradient in Divorce? Evidence From a Nationally Representative Panel Survey. *Journal of Family Issues*, 38(10), 1339–1362. <https://doi.org/10.1177/0192513X15585811>
- Boyce, C. J., Wood, A. M., & Ferguson, E. (2016). For better or for worse: The moderating effects of personality on the marriage-life satisfaction link. *Personality and Individual Differences*, 97, 61–66. <https://doi.org/10.1016/j.paid.2016.03.005>
- Buss, D. M. (1994). The Strategies of Human Mating. *American Scientist*, 82(3), 238–249.
- Buss, D. M. (2006). Strategies of Human Mating. *Psychological Topics*, 15(2), 239–260.
- Buyukkececi, Z., & Leopold, T. (2021). Sibling influence on family formation: A study of social interaction effects on fertility, marriage, and divorce. *Advances in Life Course Research*, 47, 100359. <https://doi.org/10.1016/j.alcr.2020.100359>
- Caldwell, D. F., & Burger, J. M. (1998). Personality Characteristics of Job Applicants and Success in Screening Interviews. *Personnel Psychology*, 51(1), 119–136. <https://doi.org/10.1111/j.1744-6570.1998.tb00718.x>

- Chidester, T. R., Helmreich, R. L., Gregorich, S. E., & Geis, C. E. (1991). Pilot Personality and Crew Coordination: Implications for Training and Selection. *The International Journal of Aviation Psychology*, 1(1), 25–44. [https://doi.org/10.1207/s15327108ijap0101\\_3](https://doi.org/10.1207/s15327108ijap0101_3)
- Cook, K. W., Vance, C. A., & Spector, P. E. (2000). The Relation of Candidate Personality With Selection-Interview Outcomes. *Journal of Applied Social Psychology*, 30(4), 867–885. <https://doi.org/10.1111/j.1559-1816.2000.tb02828.x>
- Cools, S., & Hart, R. K. (2015). The Effect of Childhood Family Size on Fertility in Adulthood: New Evidence From IV Estimation. *Demography*, 54(1), 23–44. <https://doi.org/10.1007/s13524-016-0537-z>
- Costa Jr., P. T., Herbst, J. H., & McCrae, R. R. (2000). Personality at Midlife: Stability, Intrinsic Maturation, and Response to Life Events. *Assessment*, 7(4), 365–378.
- Cummins, D. (2006). Dominance, Status, and Social Hierarchies. In D. M. Buss (Ed.), *The Handbook of Evolutionary Psychology* (pp. 676–697). John Wiley & Sons, Inc. <https://doi.org/10.1002/9780470939376.ch23>
- Dahlberg, J., & Kolk, M. (2018). Explaining Swedish sibling similarity in fertility: Parental fertility behavior vs. social background. *Demographic Research*, 39, 883–896. <https://doi.org/10.4054/DemRes.2018.39.32>
- Damian, R. I., Su, R., Shanahan, M., Trautwein, U., & Roberts, B. W. (2015). Can personality traits and intelligence compensate for background disadvantage? Predicting status attainment in adulthood. *Journal of Personality and Social Psychology*, 109(3), 473–489. <https://doi.org/10.1037/pspp0000024>
- Donnellan, M. B., Conger, R. D., & Bryant, C. M. (2004). The Big Five and enduring marriages. *Journal of Research in Personality*, 38(5), 481–504. <https://doi.org/10.1016/j.jrp.2004.01.001>
- Duvander, A.-Z., & Kridahl, L. (2020). Decisions on marriage? Couples' decisions on union transition in Sweden. *Genus*, 76(1), 1–21. <https://doi.org/10.1186/s41118-020-00092-5>
- Epifanio, M. S., Genna, V., De Luca, C., Roccella, M., & La Grutta, S. (2015). Paternal and maternal transition to parenthood: The risk of postpartum depression and parenting stress. *Pediatric Reports*, 7(2). <https://doi.org/10.4081/pr.2015.5872>

- Fieder, M., Huber, S., Bookstein, F. L., Iber, K., Schafer, K., Winckler, G., & Wallner, B. (2005). Status and Reproduction in Humans: New Evidence for the Validity of Evolutionary Explanations on Basis of a University Sample. *Ethology*, 111(10), 940–950. <https://doi.org/10.1111/j.1439-0310.2005.01129.x>
- Fisher, T. D., & McNulty, J. K. (2008). Neuroticism and marital satisfaction: The mediating role played by the sexual relationship. *Journal of Family Psychology*, 22(1), 112–122. <https://doi.org/10.1037/0893-3200.22.1.112>
- Friedman, D., Hechter, M., & Kanazawa, S. (1994). A theory of the value of children. *Demography*, 31(3), 375–401.
- Gershuny, B. S., & Sher, K. J. (1998). The Relation Between Personality and Anxiety: Findings From a 3-Year Prospective Study. *Journal of Abnormal Psychology*, 107(2), 252–262.
- Goldberg, L. R. (1993). The Structure of Phenotypic Personality Traits. *American Psychologist*, 48(1), 26–34.
- Grönqvist, E., & Lindqvist, E. (2015). Kan man lära sig ledarskap? Befälsutbildning under värnplikten och utfall på arbetsmarknaden (No. 4). Institutet för arbetsmarknads- och utbildningspolitisk utvärdering.
- Harris, M. A., Brett, C. E., Johnson, W., & Deary, I. J. (2016). Personality stability from age 14 to age 77 years. *Psychology and Aging*, 31(8), 862–874. <https://doi.org/10.1037/pag0000133>
- Holland, A. S., & Roisman, G. I. (2008). Big Five personality traits and relationship quality: Self-reported, observational, and physiological evidence. *Journal of Social and Personal Relationships*, 25(5), 811–829. <https://doi.org/10.1177/0265407508096697>
- Holland, J. L. (1958). A personality inventory employing occupational titles. *Journal of Applied Psychology*, 42(5), 336–342. <https://doi.org/10.1037/h0047330>
- Hopcroft, R. L. (2006). Sex, status, and reproductive success in the contemporary United States. *Evolution and Human Behavior*, 27(2), 104–120. <https://doi.org/10.1016/j.evolhumbehav.2005.07.004>
- Hopwood, C. J., & Bleidorn, W. (2018). Stability and change in personality and personality disorders. *Current Opinion in Psychology*, 21, 6–10. <https://doi.org/10.1016/j.copsyc.2017.08.034>

- Hutteman, R., Bleidorn, W., Penke, L., & Denissen, J. J. A. (2013). It Takes Two: A Longitudinal Dyadic Study on Predictors of Fertility Outcomes: Dyadic Predictors of Fertility Outcomes. *Journal of Personality*, 81(5), 487–498. <https://doi.org/10.1111/jopy.12006>
- Jalovaara, M. (2001). Socio-economic status and divorce in first marriages in Finland 1991-93. *Population Studies*, 55(2), 119–133. <https://doi.org/10.1080/00324720127685>
- Jalovaara, M. (2003). The Joint Effects of Marriage Partners' Socioeconomic Positions on the Risk of Divorce. *Demography*, 40(1), 67–81.
- Jalovaara, M. (2013). Socioeconomic Resources and the Dissolution of Cohabitations and Marriages. *European Journal of Population / Revue Européenne de Démographie*, 29(2), 167–193. <https://doi.org/10.1007/s10680-012-9280-3>
- Jalovaara, M., Neyer, G., Andersson, G., Dahlberg, J., Dommermuth, L., Fallesen, P., & Lappegård, T. (2019). Education, Gender, and Cohort Fertility in the Nordic Countries. *European Journal of Population*, 35(3), 563–586. <https://doi.org/10.1007/s10680-018-9492-2>
- Johns, S. E., Dickins, T. E., & Clegg, H. T. (2011). Teenage pregnancy and motherhood: How might evolutionary theory inform policy? *Journal of Evolutionary Psychology*, 9(1), 3–19. <https://doi.org/10.1556/JEP.9.2011.37.1>
- Johnson, A. B., & Rodgers, J. L. (2006). The Impact of Having Children on the Lives of Women: The Effects of Children Questionnaire. *Journal of Applied Social Psychology*, 36(11), 2685–2714. <https://doi.org/10.1111/j.0021-9029.2006.00123.x>
- Jokela, M. (2012). Birth-Cohort Effects in the Association Between Personality and Fertility. *Psychological Science*, 23(8), 835–841. <https://doi.org/10.1177/0956797612439067>
- Jokela, M., Alvergne, A., Pollet, T. V., & Lummaa, V. (2011). Reproductive behavior and personality traits of the Five Factor Model. *European Journal of Personality*, 25(6), 487–500. <https://doi.org/10.1002/per.822>
- Jokela, M., & Keltikangas-Järvinen, L. (2009). Adolescent Leadership and Adulthood Fertility: Revisiting the “Central Theoretical Problem of Human Sociobiology.” *Journal of Personality*, 77(1), 213–230. <https://doi.org/10.1111/j.1467-6494.2008.00543.x>

- Jokela, M., Kivimäki, M., Elovainio, M., & Keltikangas-Järvinen, L. (2009). Personality and having children: A two-way relationship. *Journal of Personality and Social Psychology*, 96(1), 218–230. <https://doi.org/10.1037/a0014058>
- Jokela, M., Pekkarinen, T., Sarvimäki, M., Terviö, M., & Uusitalo, R. (2017). Secular rise in economically valuable personality traits. *Proceedings of the National Academy of Sciences*, 114(25), 6527–6532. <https://doi.org/10.1073/pnas.1609994114>
- Jonason, P. K., Koehn, M. A., Okan, C., & O'Connor, P. J. (2018). The role of personality in individual differences in yearly earnings. *Personality and Individual Differences*, 121, 170–172. <https://doi.org/10.1016/j.paid.2017.09.038>
- Judge, T. A., Higgins, C. A., Thoresen, C. J., & Barrick, M. R. (1999). The Big Five Personality Traits, General Mental Ability, and Career Success Across the Life Span. *Personnel Psychology*, 52(3), 621–652. <https://doi.org/10.1111/j.1744-6570.1999.tb00174.x>
- Judge, T. A., & Ilies, R. (2002). Relationship of personality to performance motivation: A meta-analytic review. *Journal of Applied Psychology*, 87(4), 797–807. <https://doi.org/10.1037/0021-9010.87.4.797>
- Karney, B. R., & Bradbury, T. N. (1997). Neuroticism, Marital Interaction, and the Trajectory of Marital Satisfaction. *Journal of Personality and Social Psychology*, 72(5), 1075–1092.
- Kislev, E. (2020). How do relationship desire and sociability relate to each other among singles? Longitudinal analysis of the Pairfam survey. *Journal of Social and Personal Relationships*, 37(8–9), 2634–2650. <https://doi.org/10.1177/0265407520933000>
- Kolk, M. (2015). The causal effect of an additional sibling on completed fertility: An estimation of intergenerational fertility correlations by looking at siblings of twins. *Demographic Research*, 32, 1409–1420. <https://doi.org/10.4054/DemRes.2015.32.51>
- Kolk, M. (2019). The relationship between lifecourse accumulated income and childbearing of Swedish men and women born 1940-1970. *Stockholm Research Reports in Demography*, 19, 1–31.

- Kolk, M., & Barclay, K. (2021). Do income and marriage mediate the relationship between cognitive ability and fertility? Data from Swedish taxation and conscriptions registers for men born 1951–1967. *Intelligence*, 84, 1–11. <https://doi.org/10.1016/j.intell.2020.101514>
- Kramarz, F., Rosenqvist, O., & Skans, O. N. (2021). How family background shapes the relationship between human capital and fertility. *Journal of Population Economics*.  
<https://doi.org/10.1007/s00148-021-00834-5>
- Langdridge, D., Sheeran, P., & Connolly, K. (2005). Understanding the reasons for parenthood. *Journal of Reproductive and Infant Psychology*, 23(2), 121–133.  
<https://doi.org/10.1080/02646830500129438>
- Larsson, G., & Kallenberg, K. (2006). Direkt ledarskap. Förvarsmakten.
- Lavner, J. A., Weiss, B., Miller, J. D., & Karney, B. R. (2018). Personality change among newlyweds: Patterns, predictors, and associations with marital satisfaction over time. *Developmental Psychology*, 54(6), 1172–1185. <https://doi.org/10.1037/dev0000491>
- Leikas, S., & Salmela-Aro, K. (2015). Personality Trait Changes Among Young Finns: The Role of Life Events and Transitions: Personality Change and Life Events. *Journal of Personality*, 83(1), 117–126. <https://doi.org/10.1111/jopy.12088>
- Leone, C., & B. Hawkins, L. (2019). Cohabitation vs. Marriage: Self-Monitoring and Self-Selection to Intimate Relationships. *JOURNAL OF PSYCHOLOGY & BEHAVIORAL SCIENCE*, 7(2). <https://doi.org/10.15640/jpbs.v7n2a2>
- Lesthaeghe, R. (2014). The second demographic transition: A concise overview of its development. *Proceedings of the National Academy of Sciences*, 11(51), 18112–18115.
- Lesthaeghe, R., & van de Kaa, D. J. (1986). Twee demografische transitieën. In *Bevolking: Groei en krimp* (pp. 9–24).
- Lindqvist, E., & Vestman, R. (2010). Web Appendix (B-F): The Labor Market Returns to Cognitive and Noncognitive Ability: Evidence from the Swedish Enlistment.
- Lucas, R. E., & Donnellan, M. B. (2011). Personality development across the life span: Longitudinal analyses with a national sample from Germany. *Journal of Personality and Social Psychology*, 101(4), 847–861. <https://doi.org/10.1037/a0024298>

- Ludvigsson, J. F., Berglind, D., Sundquist, K., Sundström, J., Tynelius, P., & Neovius, M. (2022). The Swedish military conscription register: Opportunities for its use in medical research. *European Journal of Epidemiology*. <https://doi.org/10.1007/s10654-022-00887-0>
- Lundberg, S. (2012). Personality and marital surplus. *IZA Journal of Labor Economics*, 1(1), 1–21.
- Lyngstad, T. H. (2004). The impact of parent's and spouses' education on divorce rates in Norway. *Demographic Research*, 10, 121–142. <https://doi.org/10.4054/DemRes.2004.10.5>
- Lyngstad, T. H., & Prskawetz, A. (2010). Do siblings' fertility decisions influence each other? *Demography*, 47(4), 923–934. <https://doi.org/10.1007/BF03213733>
- Malouff, J. M., Thorsteinsson, E. B., Schutte, N. S., Bhullar, N., & Rooke, S. E. (2010). The Five-Factor Model of personality and relationship satisfaction of intimate partners: A meta-analysis. *Journal of Research in Personality*, 44(1), 124–127. <https://doi.org/10.1016/j.jrp.2009.09.004>
- McCrae, R. R., & Costa, P. T. (1987). Validation of the Five-Factor Model of Personality Across Instruments and Observers. *Journal of Personality and Social Psychology*, 52(1), 81–90.
- McLanahan, S., & Adams, J. (1987). Parenthood and Psychological Well-Being. *Annual Review of Sociology*, 13(1), 237–257.
- McNulty, J. K. (2008). Neuroticism and Interpersonal Negativity: The Independent Contributions of Perceptions and Behaviors. *Personality and Social Psychology Bulletin*, 34(11), 1439–1450. <https://doi.org/10.1177/0146167208322558>
- Meyer, J., Fleckenstein, J., Retelsdorf, J., & Köller, O. (2019). The relationship of personality traits and different measures of domain-specific achievement in upper secondary education. *Learning and Individual Differences*, 69, 45–59. <https://doi.org/10.1016/j.lindif.2018.11.005>
- Miller, W. B. (1992). Personality Traits and Developmental Experiences as Antecedents of Childbearing Motivation. *Demography*, 29(2), 265–285. <https://doi.org/10.2307/2061731>
- Miller, W. B. (2011). Differences between fertility desires and intentions: Implications for theory, research and policy. *Vienna Yearbook of Population Research*, 9, 75–98.

Mönstringshandboken. (2021). Plikt-och prövningsverket.

<https://plikverket.se/download/18.3b29fb261791cde3ba045b1/1620048296684/Monstringshandboken-2021.pdf>

Morosow, K., & Kolk, M. (2020). How Does Birth Order and Number of Siblings Affect Fertility? A Within-Family Comparison Using Swedish Register Data. *European Journal of Population*, 36(2), 197–233. <https://doi.org/10.1007/s10680-019-09525-0>

Murphy, M., & Knudsen, L. B. (2002). The intergenerational transmission of fertility in contemporary Denmark: The effects of number of siblings (full and half), birth order, and whether male or female. *Population Studies*, 56(3), 235–248. <https://doi.org/10.1080/00324720215937>

Neyer, F. J., & Asendorpf, J. B. (2001). Personality–relationship transaction in young adulthood. *Journal of Personality and Social Psychology*, 81(6), 1190–1204. <https://doi.org/10.1037/0022-3514.81.6.1190>

Nisén, J., Martikainen, P., Silventoinen, K., & Myrskylä, M. (2014). Age-specific fertility by educational level in the Finnish male cohort born 1940–1950. *Demographic Research*, 31, 119–136. <https://doi.org/10.4054/DemRes.2014.31.5>

Ohlsson-Wijk, S. (2014). Digit preferences in marriage formation in Sweden: Millennium marriages and birthday peaks. *Demographic Research*, 30, 739–752. <https://doi.org/10.4054/DemRes.2014.30.25>

Orth, U. (2013). How Large Are Actor and Partner Effects of Personality on Relationship Satisfaction? The Importance of Controlling for Shared Method Variance. *Personality and Social Psychology Bulletin*, 39(10), 1359–1372.

Orzeck, T., & Lung, E. (2005). Big-five personality differences of cheaters and non-cheaters. *Current Psychology*, 24(4), 274–286. <https://doi.org/10.1007/s12144-005-1028-3>

Park, K. (2005). Choosing Childlessness: Weber’s Typology of Action and Motives of the Voluntarily Childless\*. *Sociological Inquiry*, 75(3), 372–402. <https://doi.org/10.1111/j.1475-682X.2005.00127.x>

Penke, L., Denissen, J. J. A., & Miller, G. F. (2007). The evolutionary genetics of personality. *European Journal of Personality*, 21(5), 549–587. <https://doi.org/10.1002/per.629>



- Penke, L., & Jokela, M. (2016). The evolutionary genetics of personality revisited. *Current Opinion in Psychology*, 7, 104–109. <https://doi.org/10.1016/j.copsyc.2015.08.021>
- Peters, S. (2022). The prospective power of personality for childbearing: A longitudinal study based on data from Germany. *MPIDR Working Paper*, 2022–006, 1–54.
- Peters, S., & Barclay, K. (2022). Leadership skills and completed fertility among males. A study based on data from Swedish registries. *MPIDR Working Paper*, 2022–009, 1–49.
- Pinquart, M., Stotzka, M., & Silbereisen, R. K. (2008). Personality and ambivalence in decisions about becoming parents. *Social Behavior and Personality: An International Journal*, 36(1), 87–96.
- Roberts, B. W., Kuncel, N. R., Shiner, R., Caspi, A., & Goldberg, L. R. (2007). The Power of Personality: The Comparative Validity of Personality Traits, Socioeconomic Status, and Cognitive Ability for Predicting Important Life Outcomes. *Perspectives on Psychological Science*, 2(4), 313–345. <https://doi.org/10.1111/j.1745-6916.2007.00047.x>
- Roelfs, D. J., Shor, E., Kalish, R., & Yogeve, T. (2011). The Rising Relative Risk of Mortality for Singles: Meta-Analysis and Meta-Regression. *American Journal of Epidemiology*, 174(4), 379–389. <https://doi.org/10.1093/aje/kwr111>
- Sandström, G., & Stanfors, M. (2020). Growing More Equal and Growing Apart? Socioeconomic Status and the Rise of Divorce in Sweden. *Lund Papers in Economic Demography*, 4, 1–45.
- Schmitt, D. P., & Shackelford, T. K. (2008). Big Five Traits Related to Short-Term Mating: From Personality to Promiscuity across 46 Nations. *Evolutionary Psychology*, 6(2), 246–282. <https://doi.org/10.1177/147470490800600204>
- Sear, R., Mace, R., & McGregor, I. A. (2003). The effects of kin on female fertility in rural Gambia. *Evolution and Human Behavior*, 24(1), 25–42. [https://doi.org/10.1016/S1090-5138\(02\)00105-8](https://doi.org/10.1016/S1090-5138(02)00105-8)
- Senia, J. M., Neppl, T. K., Gudmunson, C. G., Donnellan, M. B., & Lorenz, F. O. (2016). The intergenerational continuity of socioeconomic status: Effects of parenting, personality, and age at first romantic partnership. *Journal of Family Psychology*, 30(6), 647–656. <https://doi.org/10.1037/fam0000171>

- Skirbekk, V., & Blekesaune, M. (2014). Personality Traits Increasingly Important for Male Fertility: Evidence from Norway: Personality traits and male fertility. *European Journal of Personality*, 28, 521–529. <https://doi.org/10.1002/per.1936>
- Sobotka, T., Beaujouan, É., & Van Bavel, J. (2017). Introduction: Education and fertility in low-fertility settings. *Vienna Yearbook of Population Research*, 15, 1–16. <https://doi.org/10.1553/populationyearbook2017s001>
- Solomon, B. C., & Jackson, J. J. (2014). Why do personality traits predict divorce? Multiple pathways through satisfaction. *Journal of Personality and Social Psychology*, 106(6), 978–996. <https://doi.org/10.1037/a0036190>
- Specht, J., Egloff, B., & Schmukle, S. C. (2011). Stability and change of personality across the life course: The impact of age and major life events on mean-level and rank-order stability of the Big Five. *Journal of Personality and Social Psychology*, 101(4), 862–882. <https://doi.org/10.1037/a0024950>
- Tavares, L. P. (2016). Who Delays Childbearing? The Associations Between Time to First Birth, Personality Traits and Education. *European Journal of Population*, 32(4), 575–597. <https://doi.org/10.1007/s10680-016-9393-1>
- The World Bank. (2022). Fertility rate, total (births per woman)—Sweden. <https://data.worldbank.org/indicator/SP.DYN.TFRT.IN?locations=SE>
- Thomson, E., & Eriksson, H. (2013). Register-based estimates of parents' coresidence in Sweden, 1969-2007. *Demographic Research*, 29, 1153–1186. <https://doi.org/10.4054/DemRes.2013.29.42>
- Usslepp, N., Hübner, N., Stoll, G., Spengler, M., Trautwein, U., & Nagengast, B. (2020). RIASEC interests and the Big Five personality traits matter for life success—But do they already matter for educational track choices? *Journal of Personality*, 88(5), 1007–1024. <https://doi.org/10.1111/jopy.12547>
- van de Kaa, D. J. (1987). Europe's Second Demographic Transition. *Population Bulletin*, 42(1), 3–55.
- Van Gestel, S., & Van Broeckhoven, C. (2003). Genetics of personality: Are we making progress? *Molecular Psychiatry*, 8(10), 840–852. <https://doi.org/10.1038/sj.mp.4001367>

- Wiik, K. A., Bernhardt, E., & Noack, T. (2010). Love or Money?: Marriage Intentions among Young Cohabitors in Norway and Sweden. *Acta Sociologica*, 53(3), 269–287.  
<https://doi.org/10.1177/0001699310374488>
- Willitts, M., Benzeval, M., & Stansfeld, S. (2004). Partnership history and mental health over time. *Journal of Epidemiology & Community Health*, 58(1), 53–58.  
<https://doi.org/10.1136/jech.58.1.53>
- Wright, M. R., & Brown, S. L. (2017). Psychological Well-being Among Older Adults: The Role of Partnership Status: Psychological Well-being Among Older Adults. *Journal of Marriage and Family*, 79(3), 833–849. <https://doi.org/10.1111/jomf.12375>

## Appendix

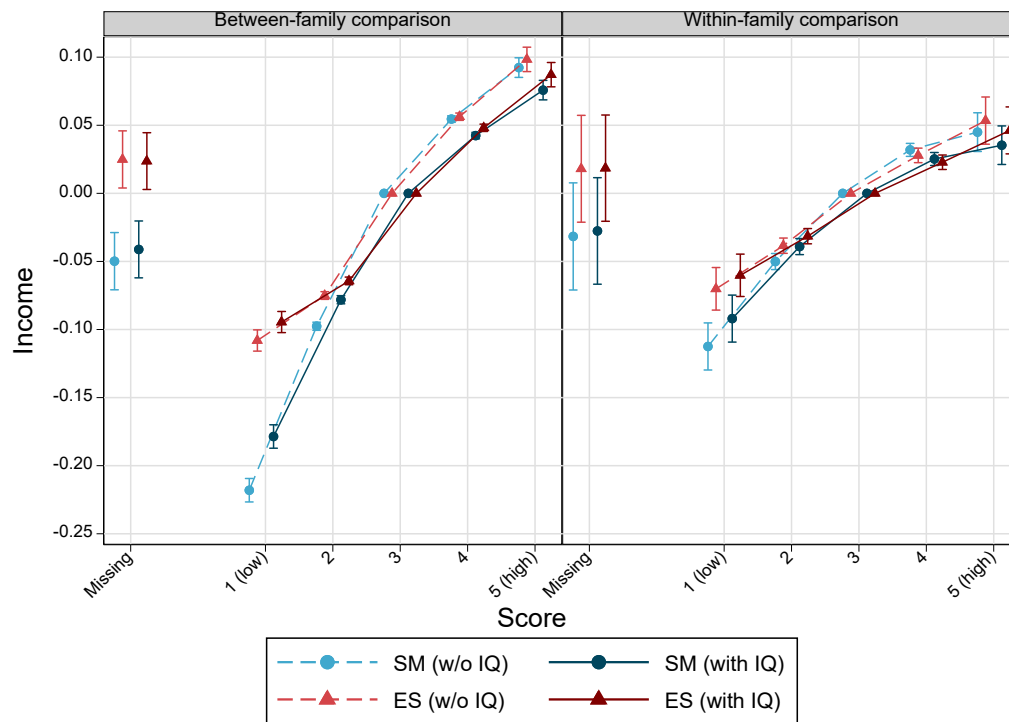
*Table A1: Descriptive Statistics - Variables*

| <b>Variable</b>     | <b>Category</b> | <b>N</b> | <b>%</b> |
|---------------------|-----------------|----------|----------|
| # Children          | 0               | 134,502  | 20.64    |
|                     | 1               | 96,183   | 14.76    |
|                     | 2               | 279,012  | 42.81    |
|                     | 3               | 108,897  | 16.71    |
|                     | 4               | 24,769   | 3.80     |
|                     | 5               | 5,879    | 0.90     |
|                     | 6               | 1,655    | 0.25     |
|                     | 7               | 487      | 0.07     |
|                     | 8               | 205      | 0.03     |
|                     | 9 or more       | 194      | 0.03     |
|                     |                 |          |          |
| Social Maturity     | 1               | 8,290    | 1.27     |
|                     | 2               | 77,430   | 11.88    |
|                     | 3               | 291,519  | 44.73    |
|                     | 4               | 135,715  | 20.82    |
|                     | 5               | 11,199   | 1.72     |
|                     | Missing         | 127,630  | 19.58    |
|                     |                 |          |          |
| Emotional Stability | 1               | 10,341   | 1.59     |
|                     | 2               | 87,545   | 13.43    |
|                     | 3               | 322,200  | 49.43    |
|                     | 4               | 96,837   | 14.86    |
|                     | 5               | 6,814    | 1.05     |
|                     | Missing         | 128,046  | 19.65    |
|                     |                 |          |          |
| Cognitive Skills    | 1               | 21,093   | 3.24     |
|                     | 2               | 45,168   | 6.93     |
|                     | 3               | 69,778   | 10.71    |
|                     | 4               | 100,048  | 15.35    |
|                     | 5               | 154,058  | 23.64    |
|                     | 6               | 108,354  | 16.62    |
|                     | 7               | 80,287   | 12.32    |
|                     | 8               | 47,158   | 7.24     |
|                     | 9               | 25,839   | 3.96     |
|                     |                 |          |          |

Table A1: Descriptive Statistics – Variables (cont.)

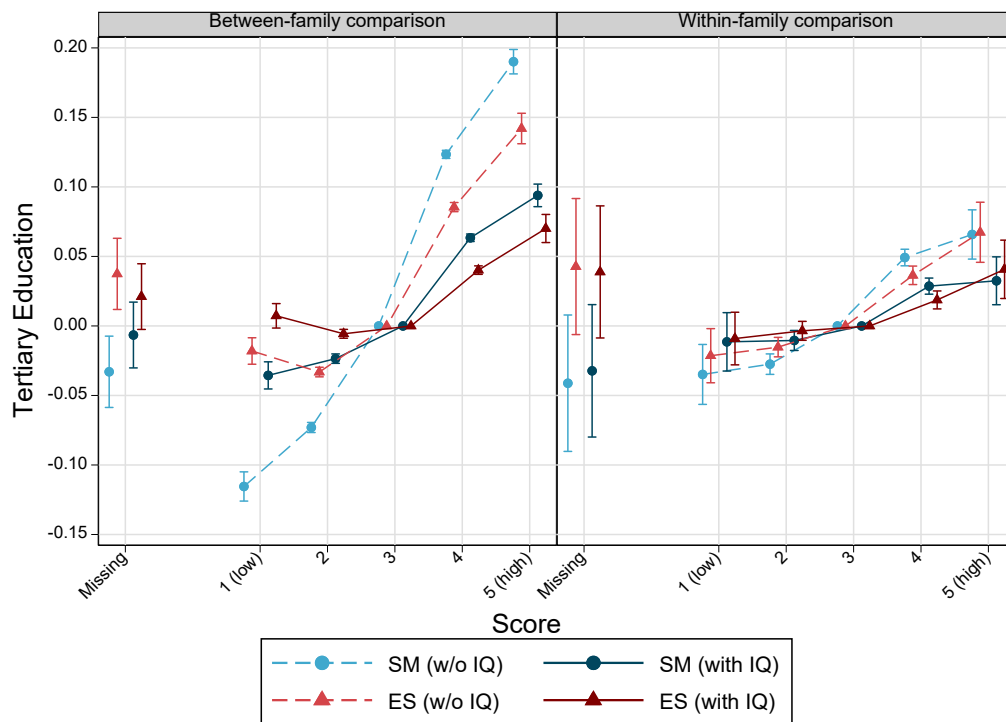
| Variable           | Category           | N       | %        |           |           |
|--------------------|--------------------|---------|----------|-----------|-----------|
| Educational Level  | No Basic Education | 696     | 0.11     |           |           |
|                    | Primary            | 53,466  | 8.20     |           |           |
|                    | Lower Secondary    | 203,223 | 31.18    |           |           |
|                    | Upper Secondary    | 148,940 | 22.85    |           |           |
|                    | Post-Secondary     | 98,559  | 15.12    |           |           |
|                    | Tertiary           | 137,985 | 21.17    |           |           |
|                    | Doctor             | 8,914   | 1.37     |           |           |
| Birth Order        | 1                  | 466,060 | 71.51    |           |           |
|                    | 2                  | 150,762 | 23.13    |           |           |
|                    | 3                  | 28,467  | 4.37     |           |           |
|                    | 4                  | 4,965   | 0.76     |           |           |
|                    | 5                  | 1,100   | 0.17     |           |           |
|                    | 6                  | 290     | 0.04     |           |           |
|                    | 7 or higher        | 139     | 0.01     |           |           |
| Sibling Group Size | 1                  | 321,959 | 49.40    |           |           |
|                    | 2                  | 245,767 | 37.71    |           |           |
|                    | 3                  | 67,597  | 10.37    |           |           |
|                    | 4                  | 12,561  | 1.93     |           |           |
|                    | 5                  | 2,771   | 0.43     |           |           |
|                    | 6                  | 739     | 0.11     |           |           |
|                    | 7                  | 241     | 0.04     |           |           |
|                    | 8 or more          | 148     | 0.02     |           |           |
| Civil Status       | Never Married      | 329,387 | 50.54    |           |           |
|                    | Ever Married       | 322,396 | 49.46    |           |           |
|                    | Observations       | Mean    | Std.dev. | Min       | Max       |
| Income by age 39   | 651,783            | 132.60  | 110.14   | -2,409.68 | 46,742.79 |
| Birth Year         | 651,783            | 1971.24 | 4.11     | 1963      | 1979      |

Figure A1: The relationship between personality factors measured at ages 17-20 and cumulated income by age 39 amongst Swedish men born 1963-1979. Linear regression models, error bars are 95% confidence intervals.



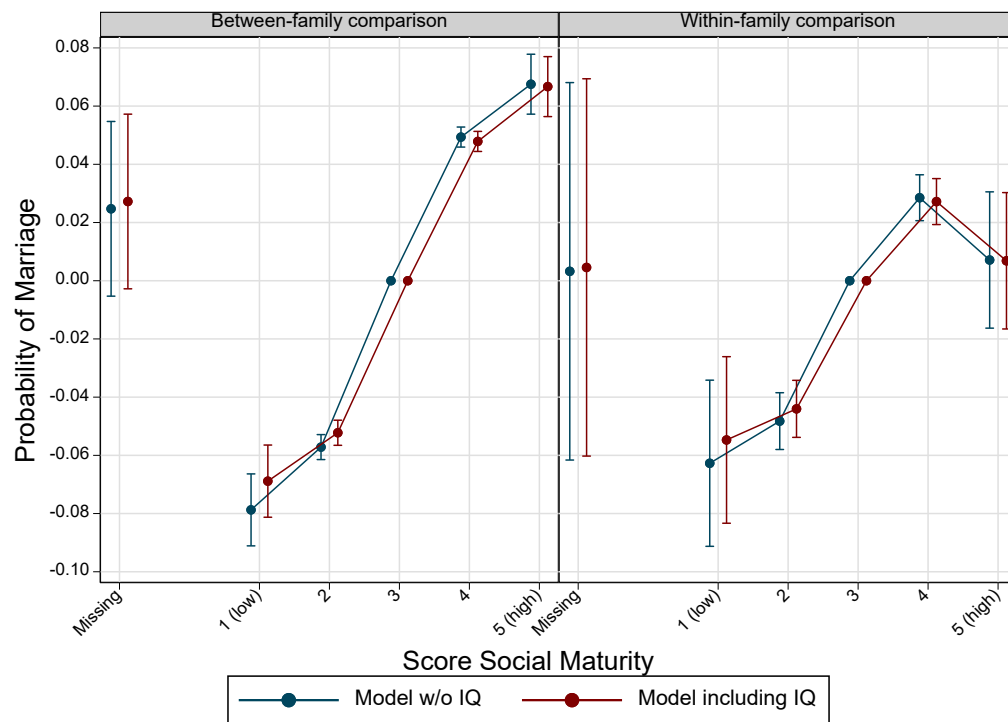
Note: Models without IQ control for birth year, birth order, and in case of between-family considerations for sibling group size. Results for models including cognitive ability are shown separately.

Figure A2: The relationship between personality factors measured at ages 17-20 and the probability to obtain tertiary education by age 39 amongst Swedish men born 1963-1979. Linear probability models, error bars are 95% confidence intervals.



Note: Models without IQ control for birth year, birth order, and in case of between-family considerations for sibling group size. Results for models including cognitive ability are shown separately.

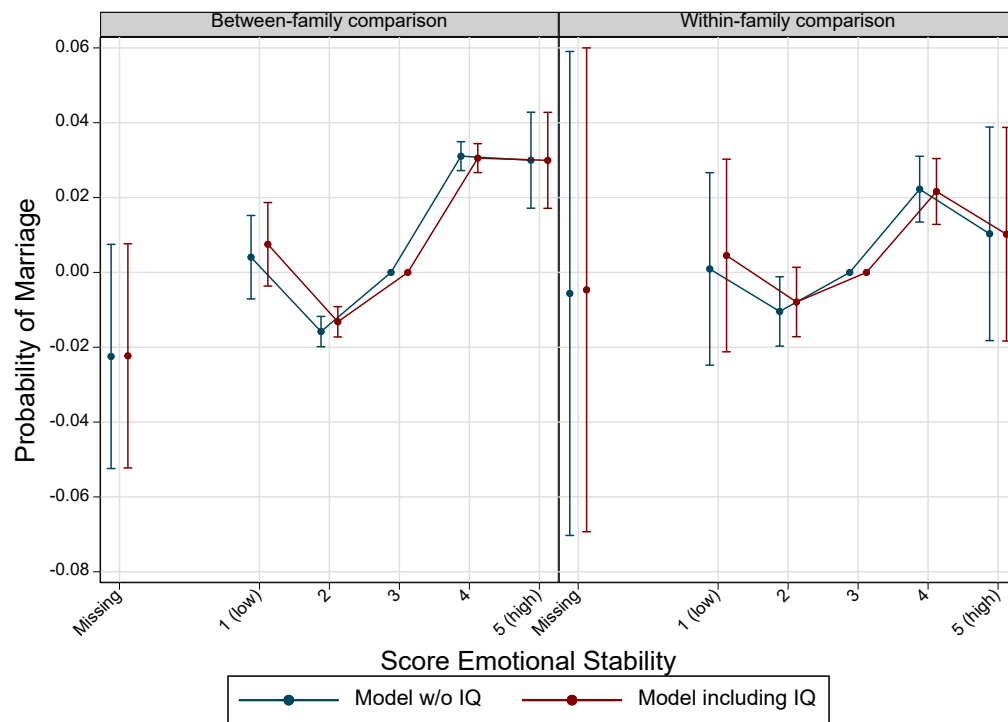
Figure A3: The relationship between social maturity measured at ages 17-20 and the probability to get married by age 39 amongst Swedish men born 1963-1979. Linear probability models, error bars are 95% confidence intervals.



Note: Models without IQ control for emotional stability, birth year, birth order, and in case of between-family considerations for sibling group size. Results for models including cognitive ability are shown separately.

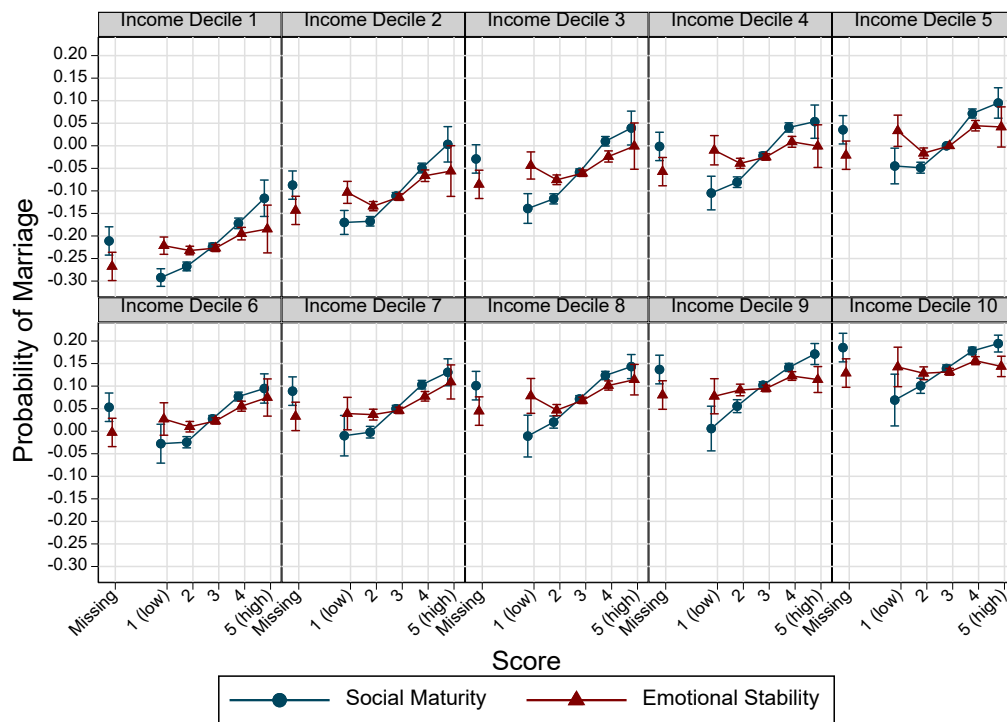


Figure A4: The relationship between emotional stability measured at ages 17-20 and the probability to get married by age 39 amongst Swedish men born 1963-1979. Linear probability models, error bars are 95% confidence intervals.



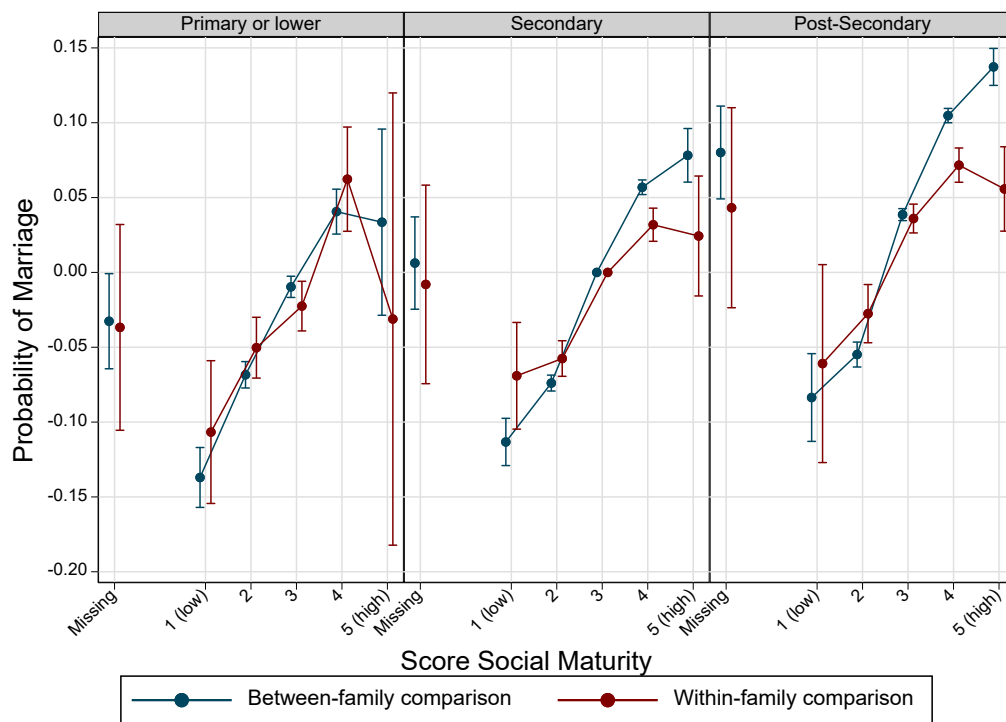
Note: Models without IQ control for social maturity, birth year, birth order, and in case of between-family considerations for sibling group size. Results for models including cognitive ability are shown separately.

Figure A5: The relationship between personality factors measured at ages 17-20 and the probability to get married by age 39 amongst Swedish men born 1963-1979. Linear probability models by income deciles, error bars are 95% confidence intervals.



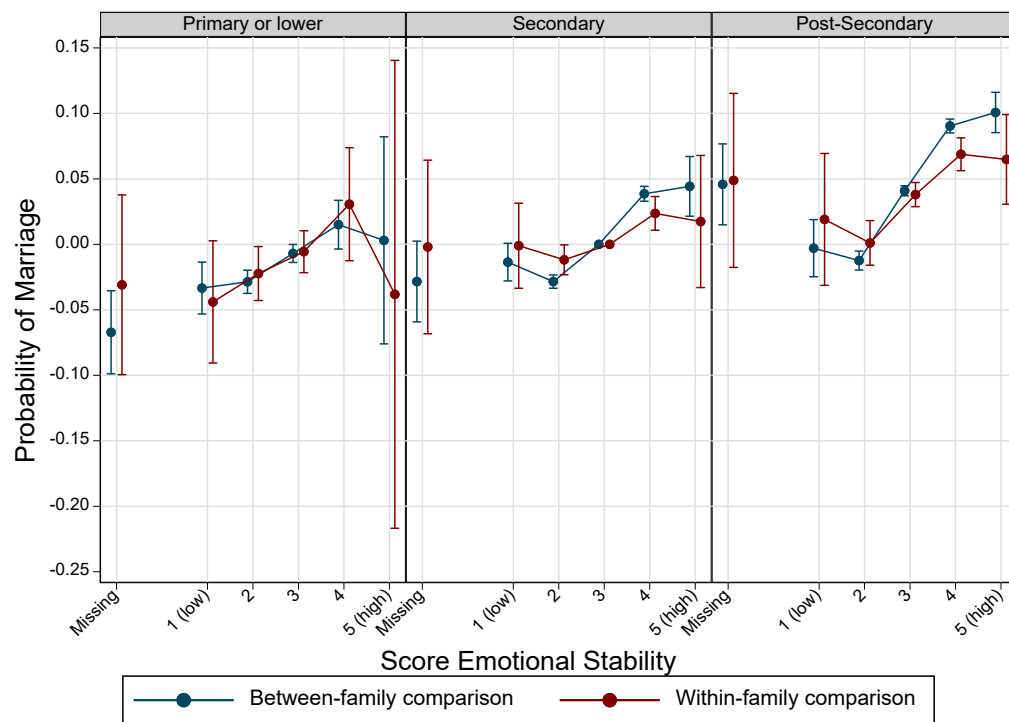
Note: Models control for cognitive abilities, birth year, birth order, and sibling group size.

Figure A6: The relationship between social maturity measured at ages 17-20 and the probability to get married by age 39 amongst Swedish men born 1963-1979. Linear probability models by educational levels, error bars are 95% confidence intervals.



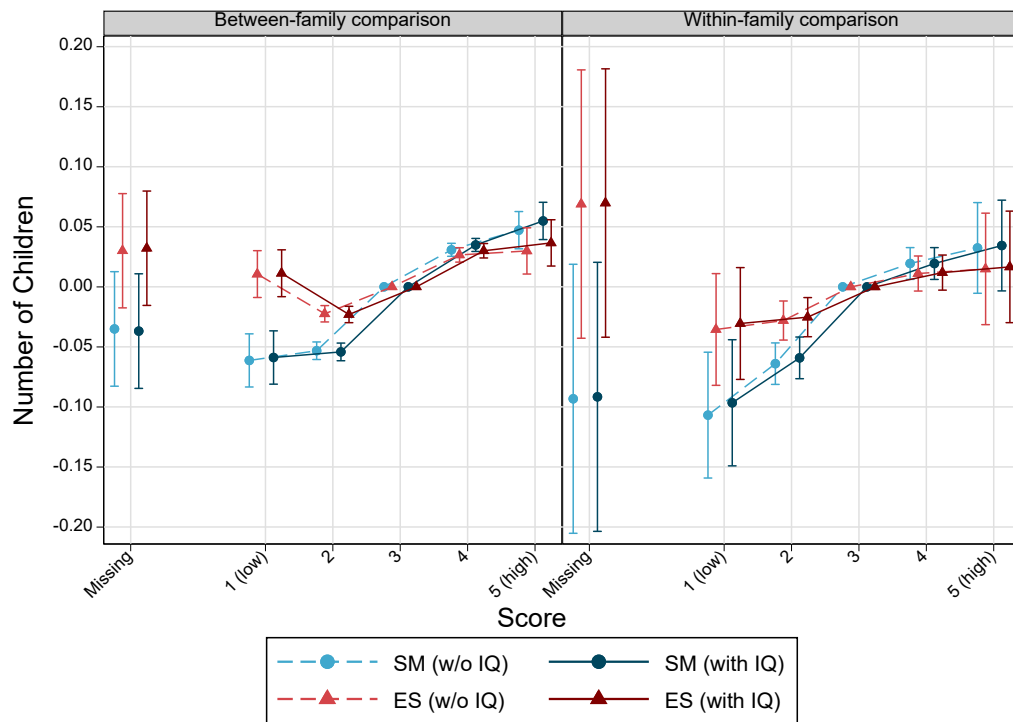
Note: Models control for emotional stability, cognitive ability, birth year, birth order, and in case of between-family considerations for sibling group size.

Figure A7: The relationship between emotional stability measured at ages 17-20 and the probability to get married by age 39 amongst Swedish men born 1963-1979. Linear probability models by educational levels, error bars are 95% confidence intervals.



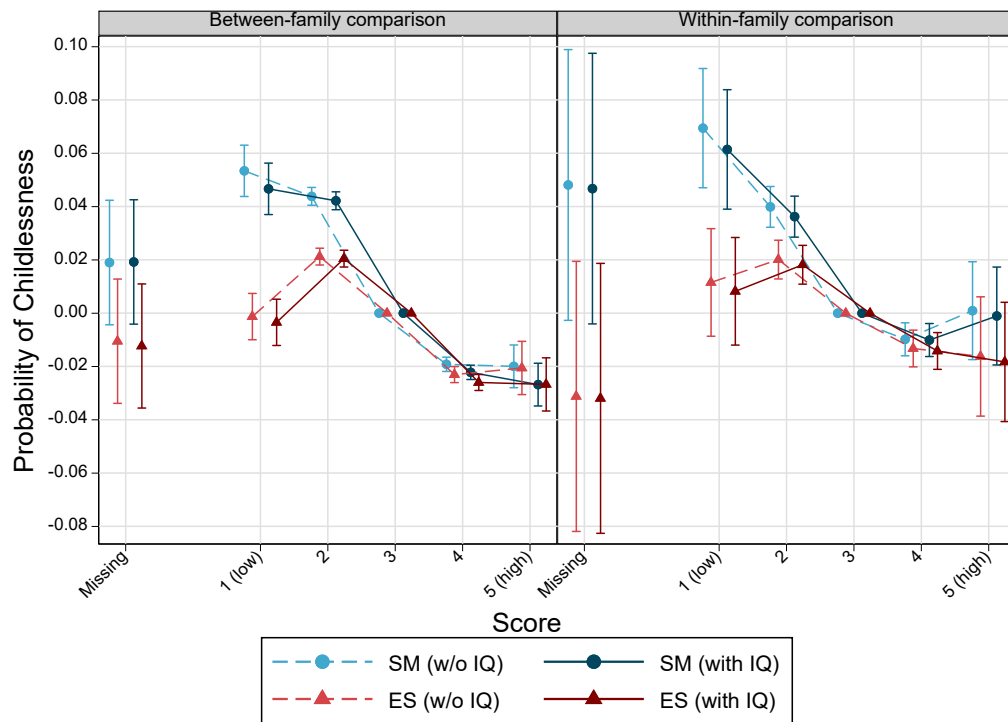
Note: Models control for social maturity, cognitive ability, birth year, birth order, and in case of between-family considerations for sibling group size.

Figure A8: The relationship between personality factors measured at ages 17-20 and number of children by age 39 amongst Swedish men born 1963-1979. Poisson regression models, error bars are 95% confidence intervals.



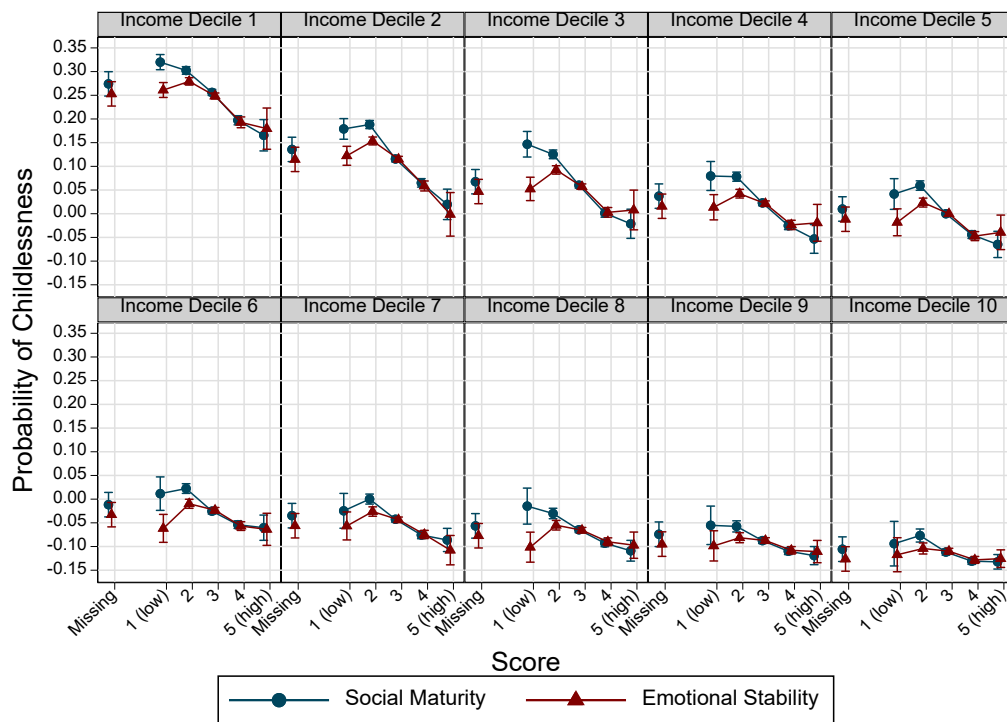
Note: Models without IQ control for birth year, birth order, and in case of between-family considerations for sibling group size. Results for models including cognitive ability are shown separately.

Figure A9: The relationship between personality factors measured at ages 17-20 and childlessness by age 39 amongst Swedish men born 1963-1979. Linear probability models, error bars are 95% confidence intervals.



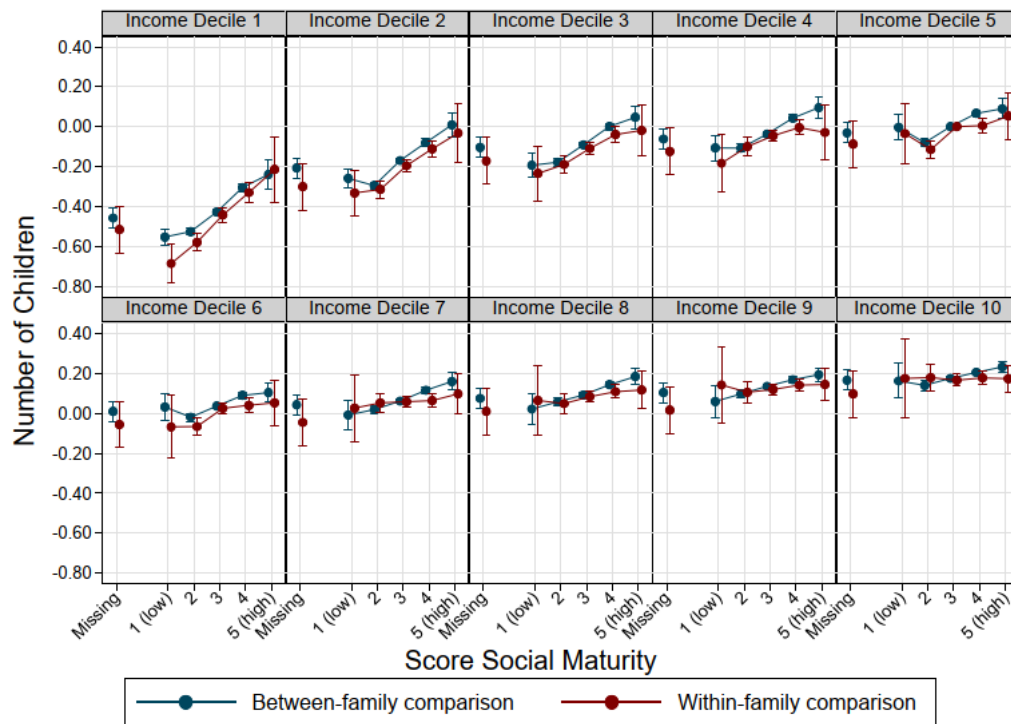
Note: Models without IQ control for birth year, birth order, and in case of between-family considerations for sibling group size. Results for models including cognitive ability are shown separately.

Figure A10: The relationship between personality factors measured at ages 17-20 and childlessness by age 39 amongst Swedish men born 1963-1979. Linear probability models by income deciles, error bars are 95% confidence intervals.



Note: Models control for cognitive abilities, birth year, birth order, and sibling group size.

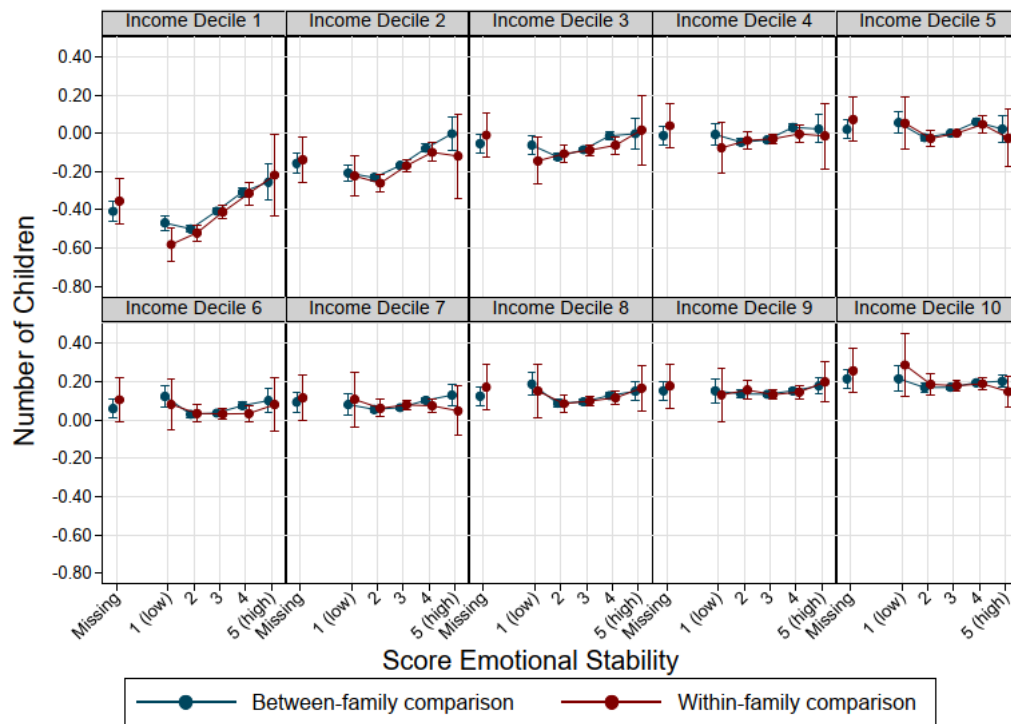
Figure A11: The relationship between social maturity measured at ages 17-20 and number of children by age 39 amongst Swedish men born 1963-1979. Poisson regression models by income deciles, error bars are 95% confidence intervals.



Note: Models control for emotional stability, cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size.

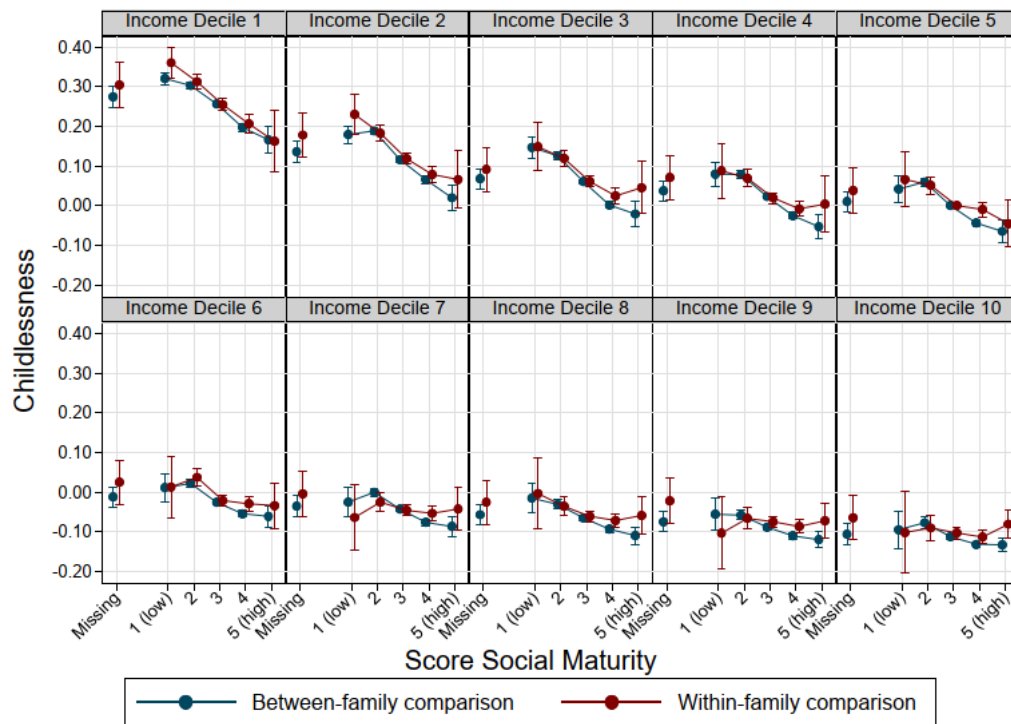


Figure A12: The relationship between emotional stability measured at ages 17-20 and number of children by age 39 amongst Swedish men born 1963-1979. Poisson regression models by income deciles, error bars are 95% confidence intervals.



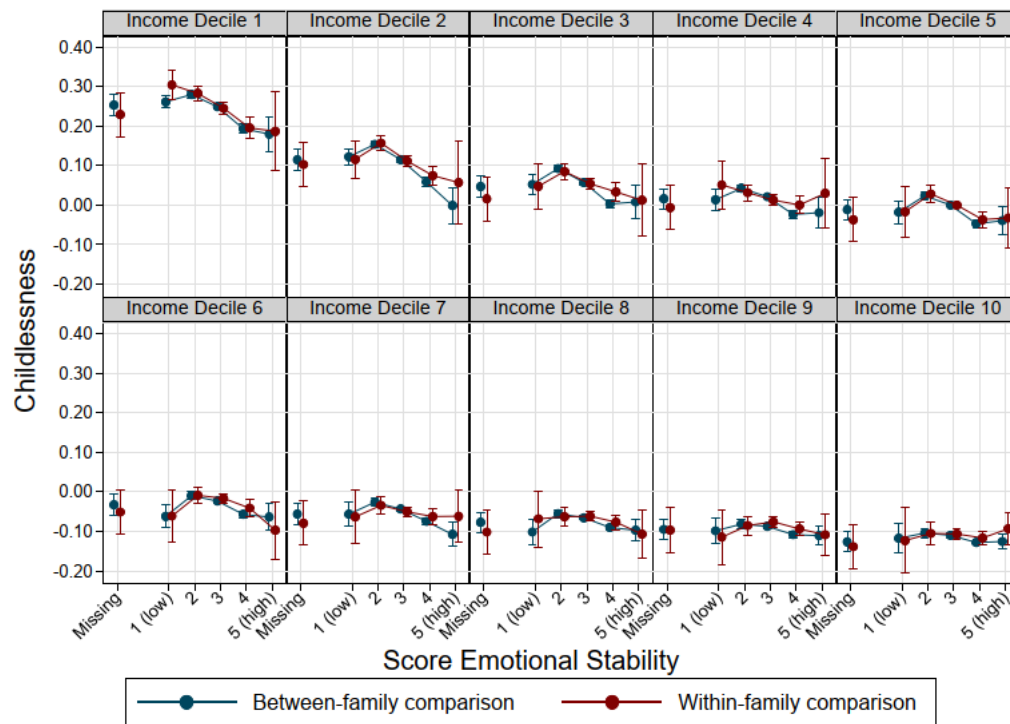
Note: Models control for social maturity, cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size.

Figure A13: The relationship between social maturity measured at ages 17-20 and childlessness by age 39 amongst Swedish men born 1963-1979. Linear probability models by income deciles, error bars are 95% confidence intervals.



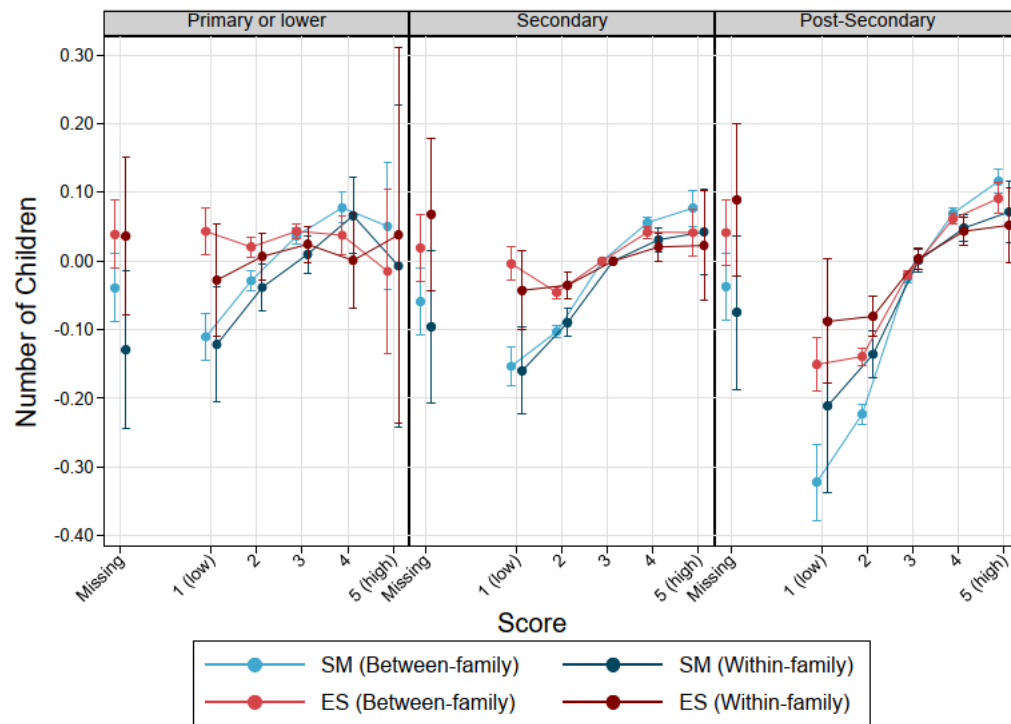
Note: Models control for emotional stability, cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size.

Figure A14: The relationship between emotional stability measured at ages 17-20 and childlessness by age 39 amongst Swedish men born 1963-1979. Linear probability models by income deciles, error bars are 95% confidence intervals.



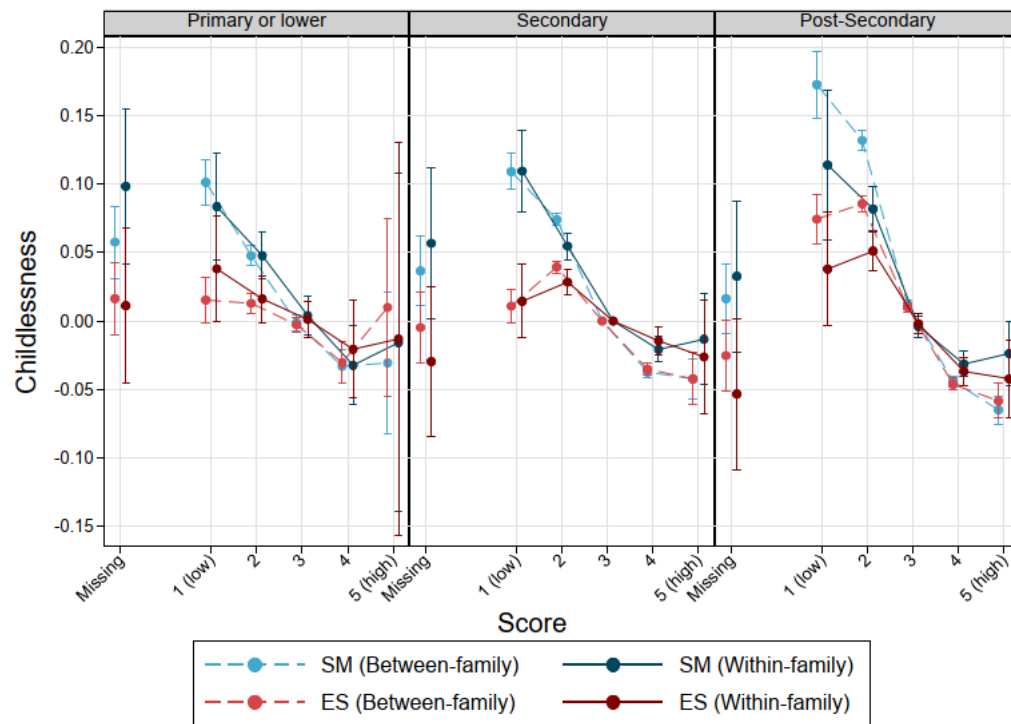
Note: Models control for social maturity, cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size.

Figure A15: The relationship between personality factors measured at ages 17-20 and number of children by age 39 amongst Swedish men born 1963-1979. Poisson regression models by educational levels, error bars are 95% confidence intervals.



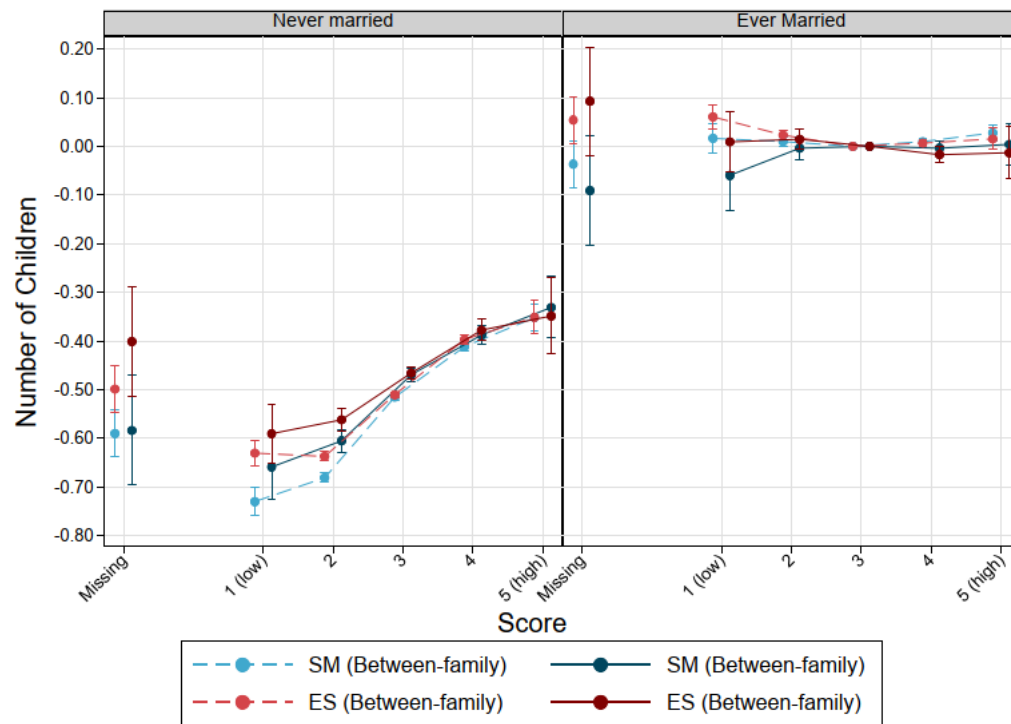
Note: Models control for cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size.

Figure A16: The relationship between personality factors measured at ages 17-20 and childlessness by age 39 amongst Swedish men born 1963-1979. Linear probability models by educational levels, error bars are 95% confidence intervals.



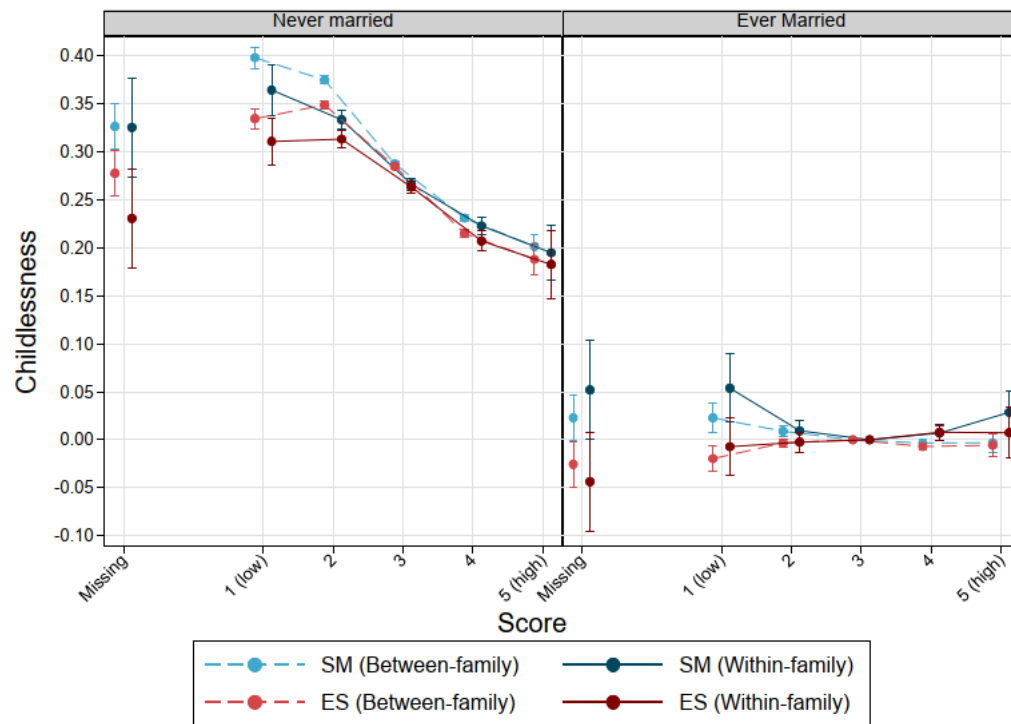
Note: Models control for cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size.

Figure A17: The relationship between personality factors measured at ages 17-20 and number of children by age 39 amongst Swedish men born 1963-1979. Poisson regression models by marital status, error bars are 95% confidence intervals.



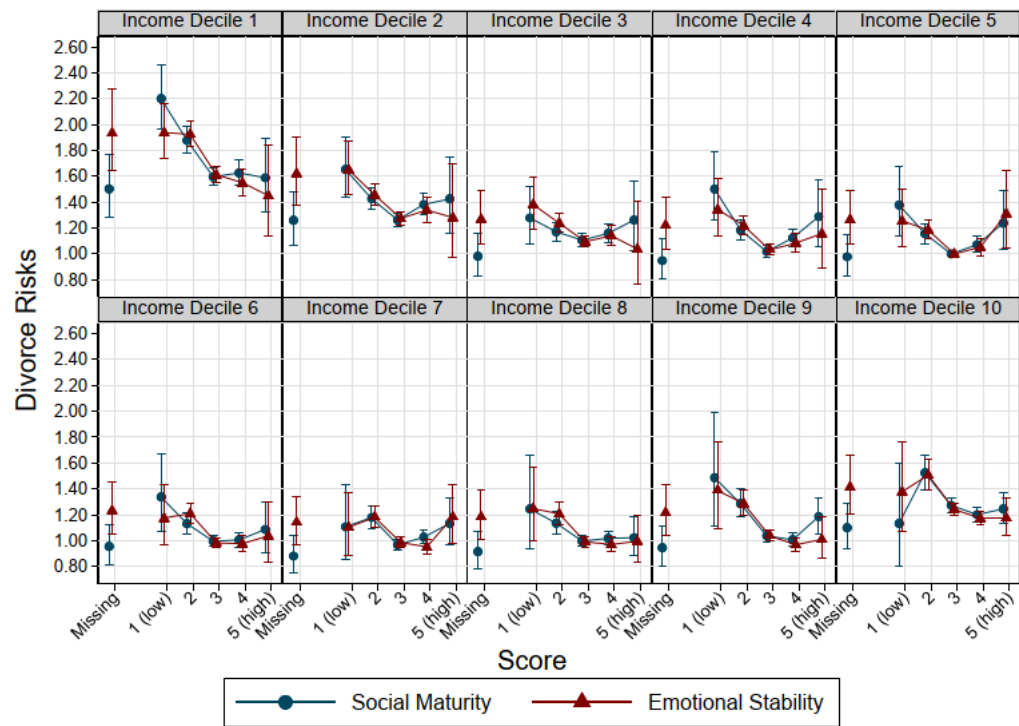
Note: Models control for cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size.

Figure A18: The relationship between personality factors measured at ages 17-20 and childlessness by age 39 amongst Swedish men born 1963-1979. Linear probability models by marital status, error bars are 95% confidence intervals.



Note: Models control for cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size.

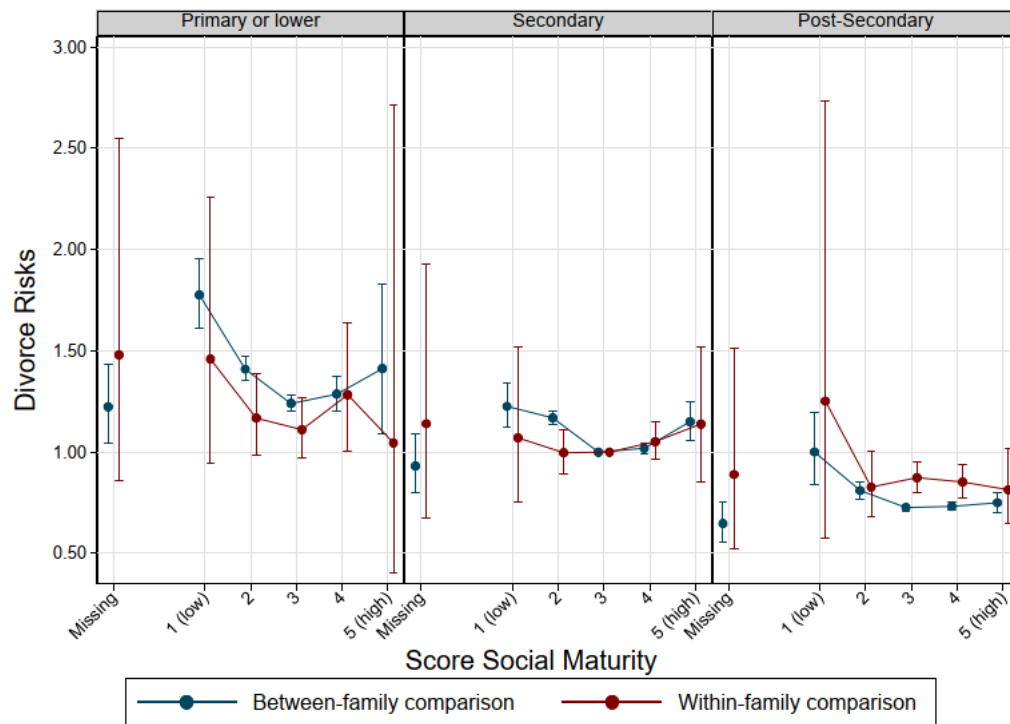
Figure A19: The relationship between personality factors measured at ages 17-20 and divorce risks by age 39 amongst Swedish men born 1963-1979. Cox PH models by income deciles, error bars are 95% confidence intervals.



Note: Models control for cognitive abilities, birth year, birth order, sibling group size, education, and parental status.

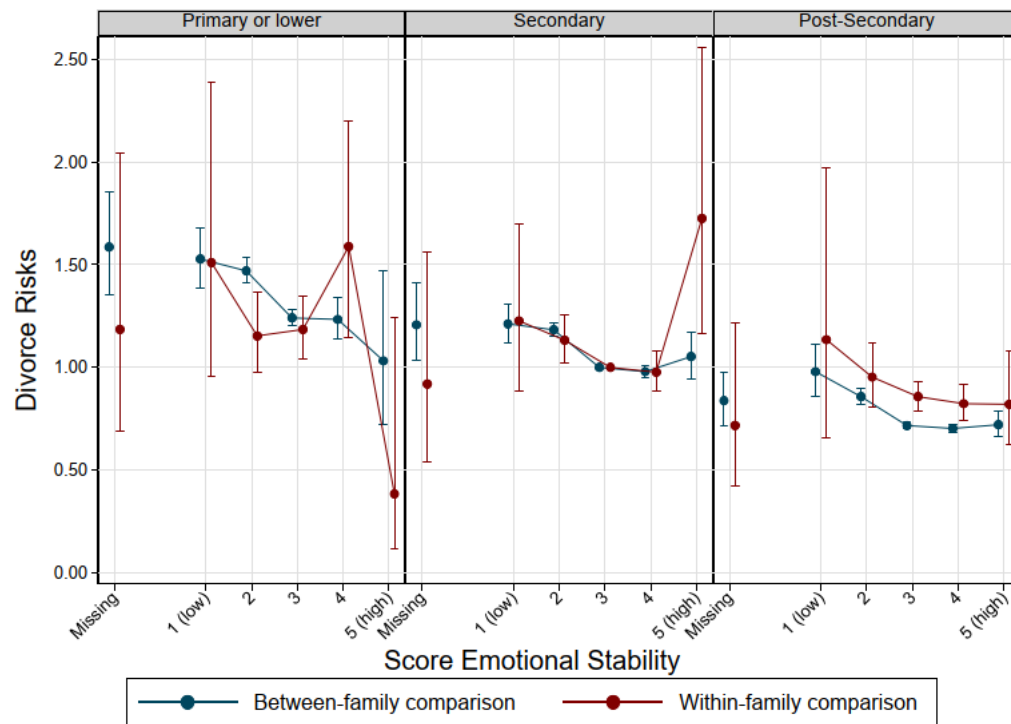


Figure A20: The relationship between social maturity measured at ages 17-20 and divorce risks by age 39 amongst Swedish men born 1963-1979. Cox PH models by educational levels, error bars are 95% confidence intervals.



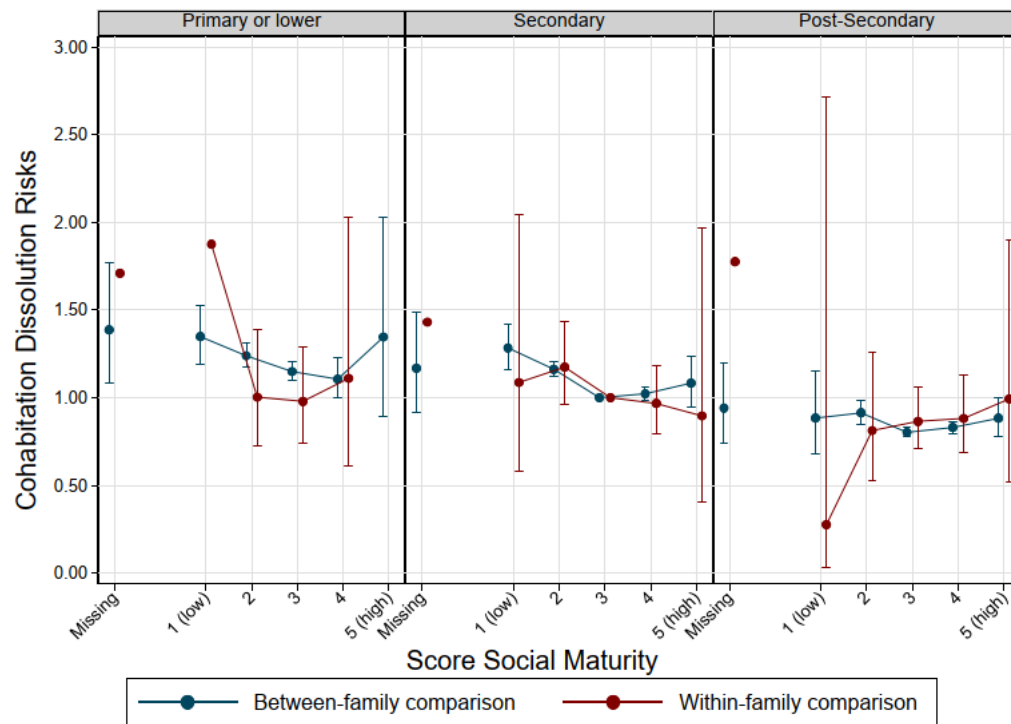
Note: Models control for emotional stability, cognitive abilities, birth year, birth order, income, parental status, and in case of between-family considerations for sibling group size.

Figure A21: The relationship between emotional stability measured at ages 17-20 and divorce risks by age 39 amongst Swedish men born 1963-1979. Cox PH models by educational levels, error bars are 95% confidence intervals.



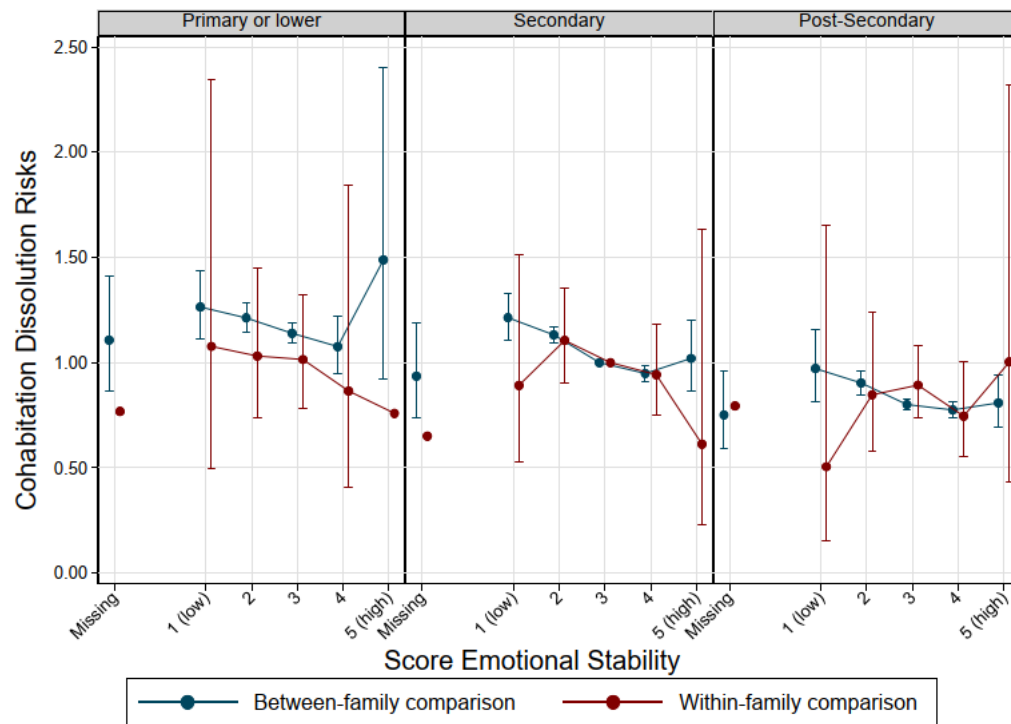
Note: Models control for social maturity, cognitive abilities, birth year, birth order, income, parental status, and in case of between-family considerations for sibling group size.

Figure A22: The relationship between social maturity measured at ages 17-20 and cohabitation dissolution risks by age 39 amongst Swedish men born 1963-1979. Cox PH models by educational levels, error bars are 95% confidence intervals.



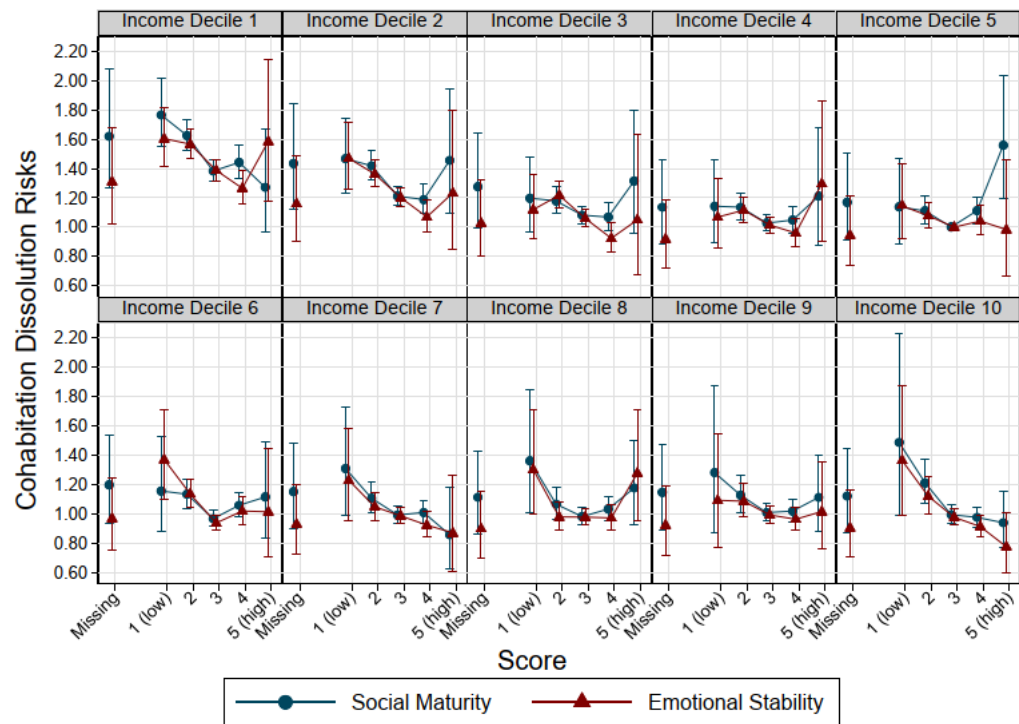
Note: Models control for emotional stability, cognitive abilities, birth year, birth order, income, and in case of between-family considerations for sibling group size. Point estimates or confidence intervals that are not shown are left out for visualization purposes here. Estimates are available upon request.

Figure A23: The relationship between emotional stability maturity measured at ages 17-20 and cohabitation dissolution risks by age 39 amongst Swedish men born 1963-1979. Cox PH models by educational levels, error bars are 95% confidence intervals.



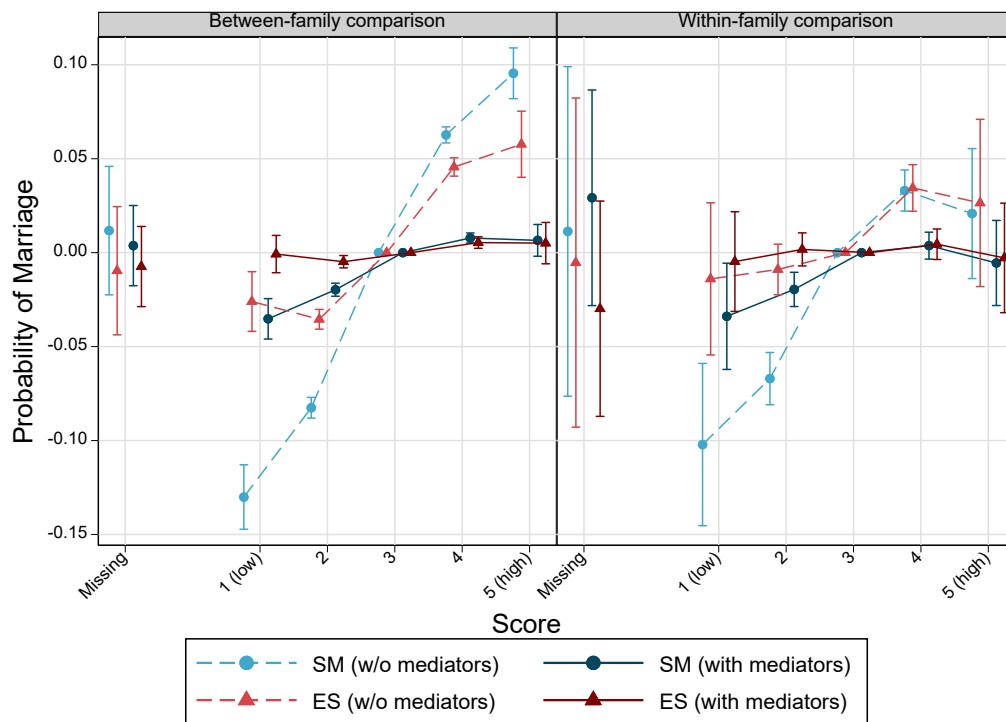
Note: Models control for social maturity, cognitive abilities, birth year, birth order, income, and in case of between-family considerations for sibling group size. Point estimates or confidence intervals that are not shown are left out for visualization purposes here. Estimates are available upon request.

Figure A24: The relationship between personality factors measured at ages 17-20 and cohabitation dissolution risks by age 39 amongst Swedish men born 1963-1979. Cox PH models by income deciles, error bars are 95% confidence intervals.



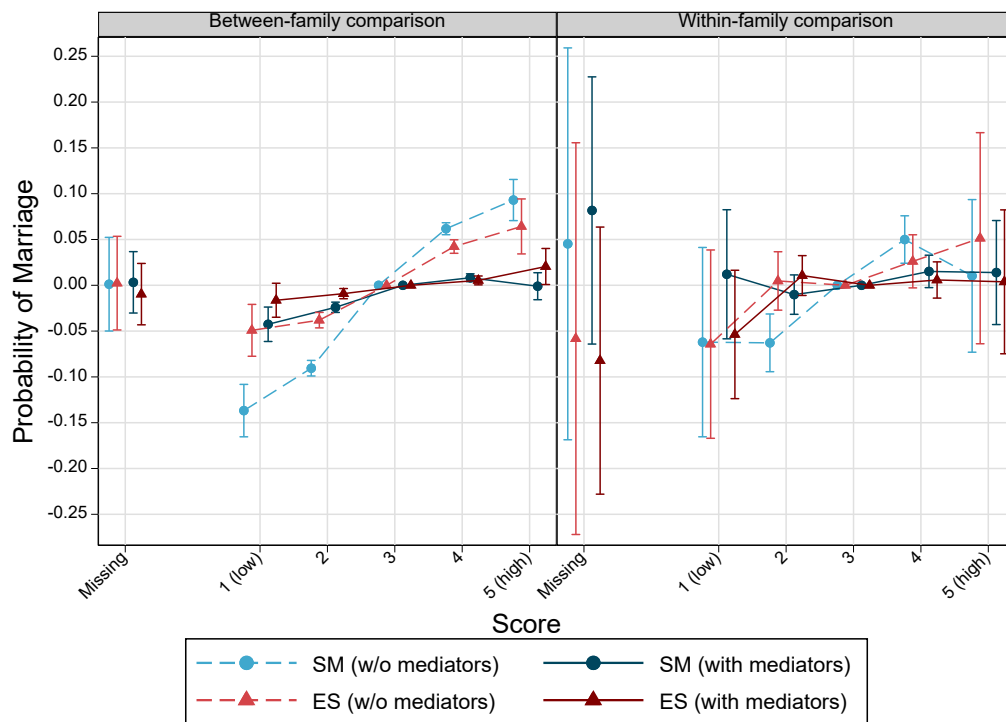
Note: Models control for cognitive abilities, birth year, birth order, sibling group size, and education. Point estimates or confidence intervals that are not shown are left out for visualization purposes here. Estimates are available upon request.

Figure A25: The relationship between personality factors measured at ages 17-20 and the probability to get married by age 45 amongst Swedish men born 1963-1979. Linear probability models, error bars are 95% confidence intervals.



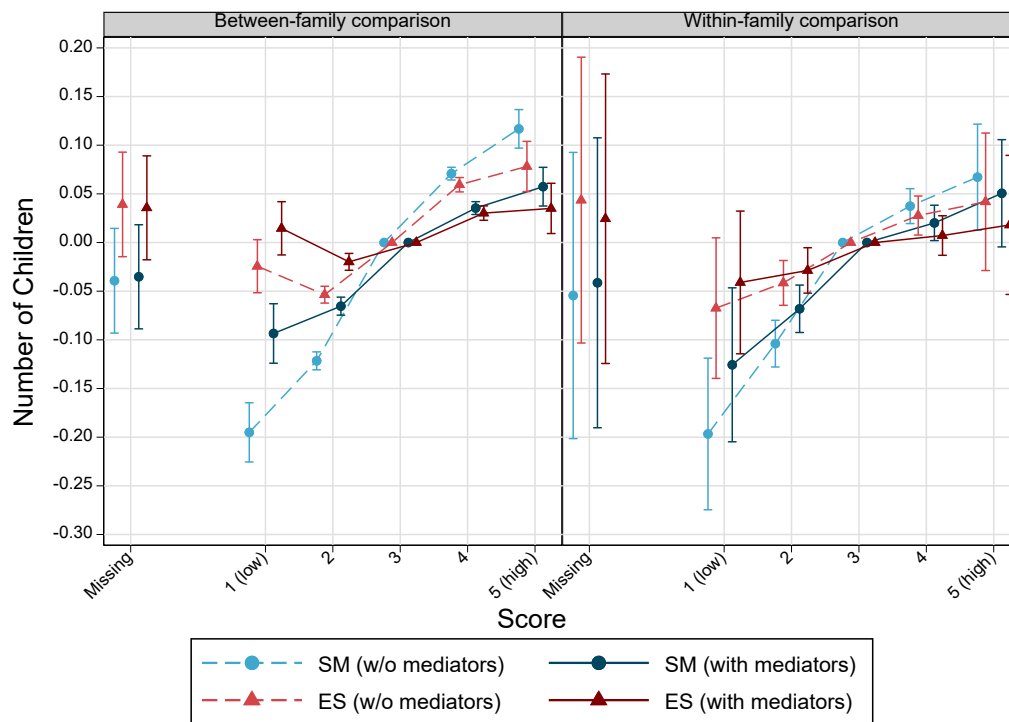
Note: Models without mediators control for cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size. Models with mediators include income, education, and parental status additionally.

Figure A26: The relationship between personality factors measured at ages 17-20 and the probability to get married by age 50 amongst Swedish men born 1963-1979. Linear probability models, error bars are 95% confidence intervals.



Note: Models without mediators control for cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size. Models with mediators include income, education, and parental status additionally.

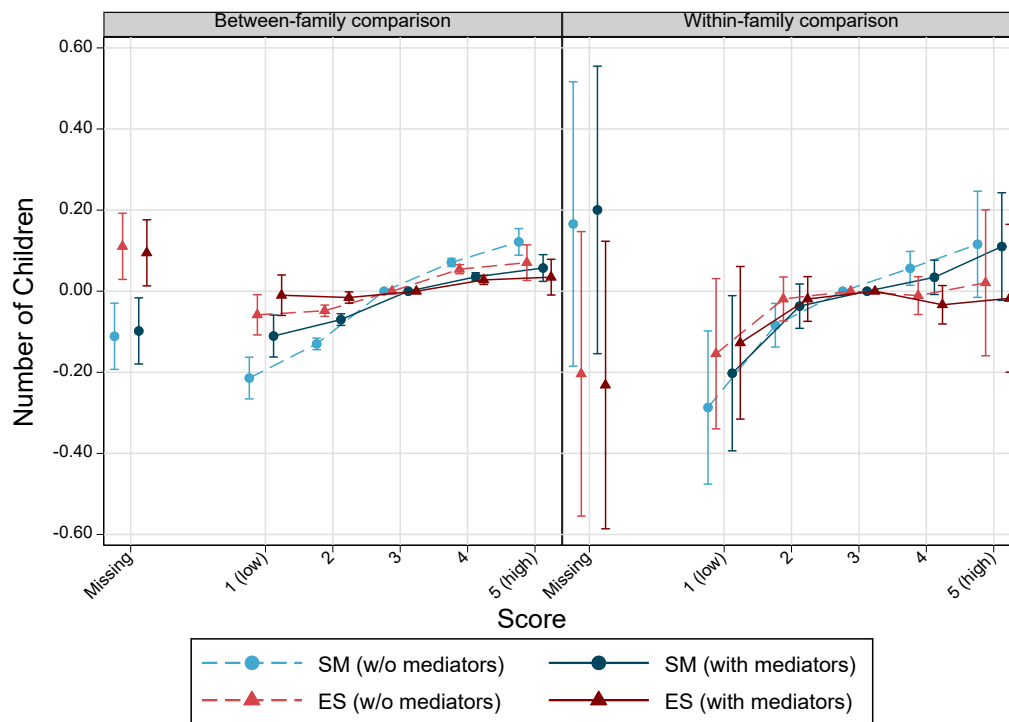
Figure A27: The relationship between personality factors measured at ages 17-20 and number of children by age 45 amongst Swedish men born 1963-1979. Poisson regression models, error bars are 95% confidence intervals.



Note: Models without mediators control for cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size. Models with mediators include income, education, and marital status additionally.

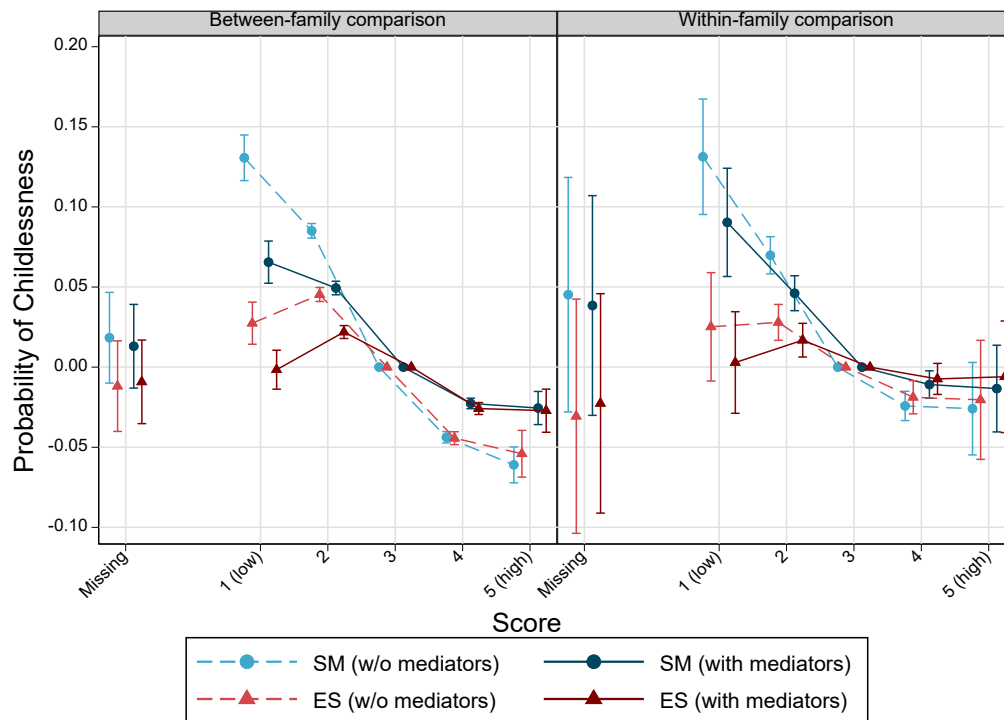


Figure A28: The relationship between personality factors measured at ages 17-20 and number of children by age 50 amongst Swedish men born 1963-1979. Poisson regression models, error bars are 95% confidence intervals.



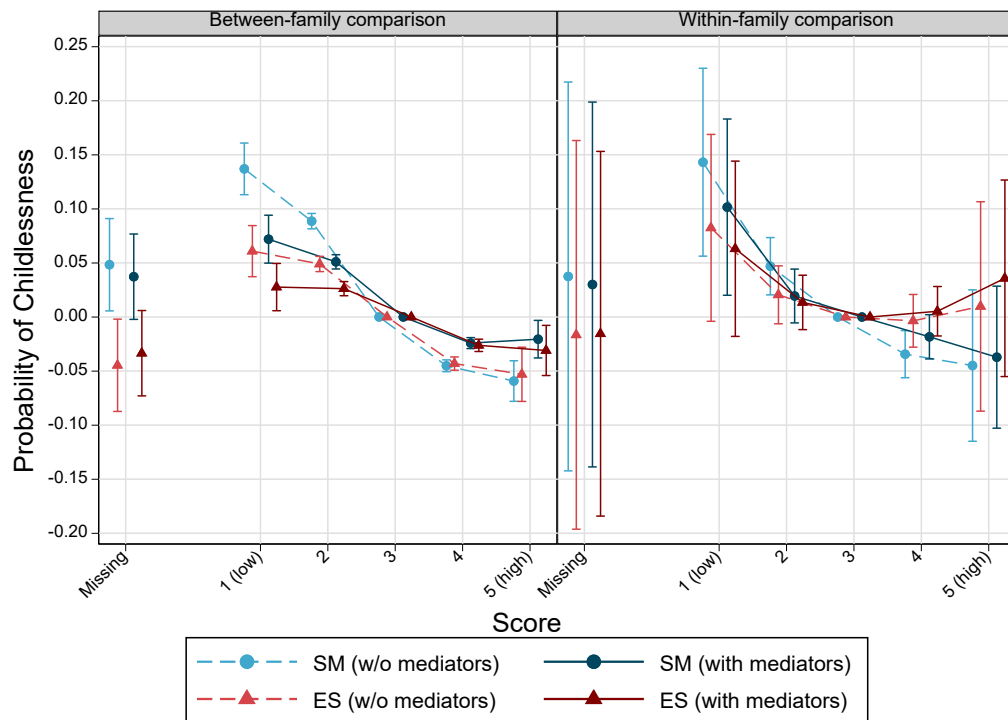
Note: Models without mediators control for cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size. Models with mediators include income, education, and marital status additionally.

Figure A29: The relationship between personality factors measured at ages 17-20 and childlessness by age 45 amongst Swedish men born 1963-1979. Linear probability models, error bars are 95% confidence intervals.



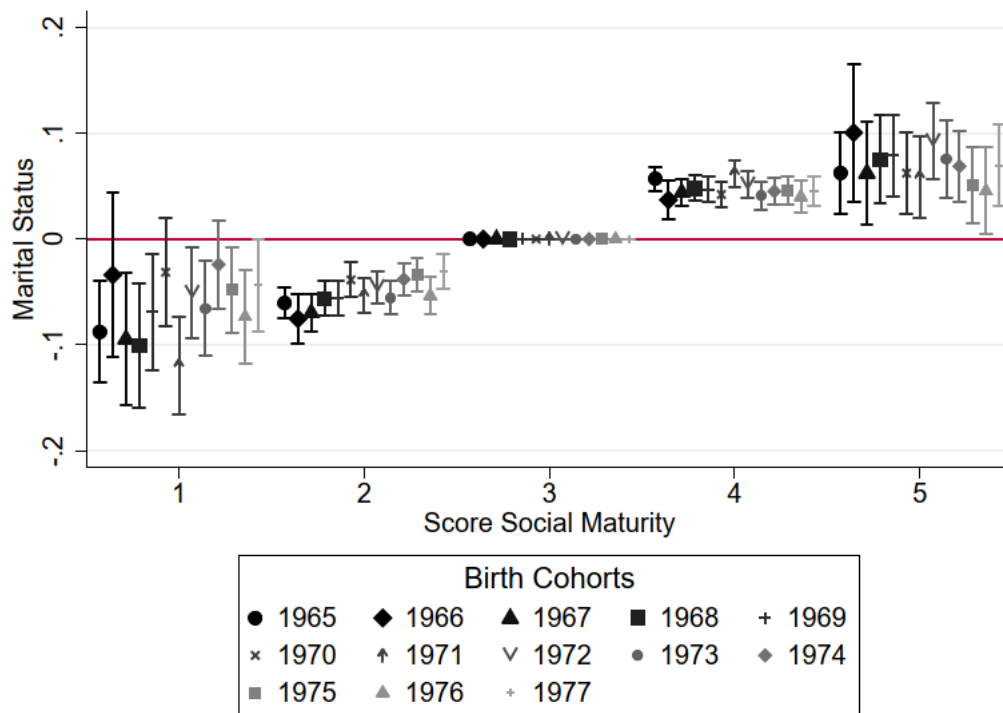
Note: Models without mediators control for cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size. Models with mediators include income, education, and marital status additionally.

Figure A30: The relationship between personality factors measured at ages 17-20 and childlessness by age 50 amongst Swedish men born 1963-1979. Linear probability models, error bars are 95% confidence intervals.



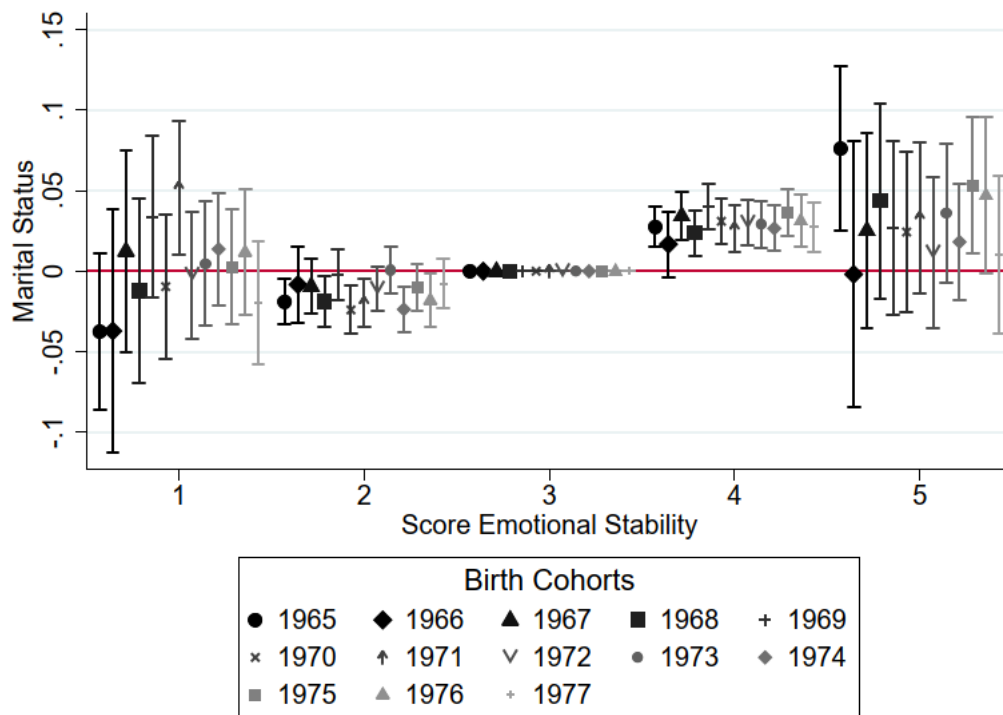
Note: Models without mediators control for cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size. Models with mediators include income, education, and marital status additionally.

Figure A31: Coefficients of social maturity scores measured at ages 17-20 on marital status by age 39 amongst Swedish men born 1965-1977 across birth cohorts. Linear probability models, error bars are 95% confidence intervals.



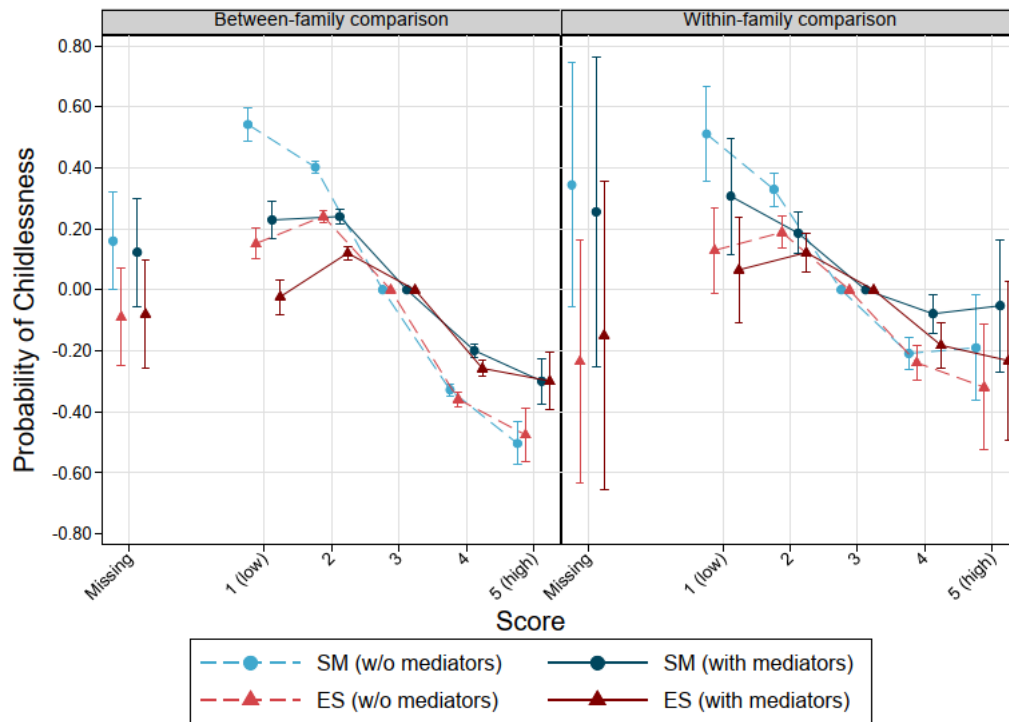
Note: Models control for *emotional stability*, cognitive abilities, birth order, sibling group size, *income* and education. Birth cohorts 1963, 1964, 1978, and 1979 are not shown due to high statistical uncertainty (too few cases and too large confidence intervals). Coefficients from the category of missing values are not shown for the same reason.

Figure A32: Coefficients of emotional stability scores measured at ages 17-20 on marital status by age 39 amongst Swedish men born 1965-1977 across birth cohorts. Linear probability models, error bars are 95% confidence intervals.



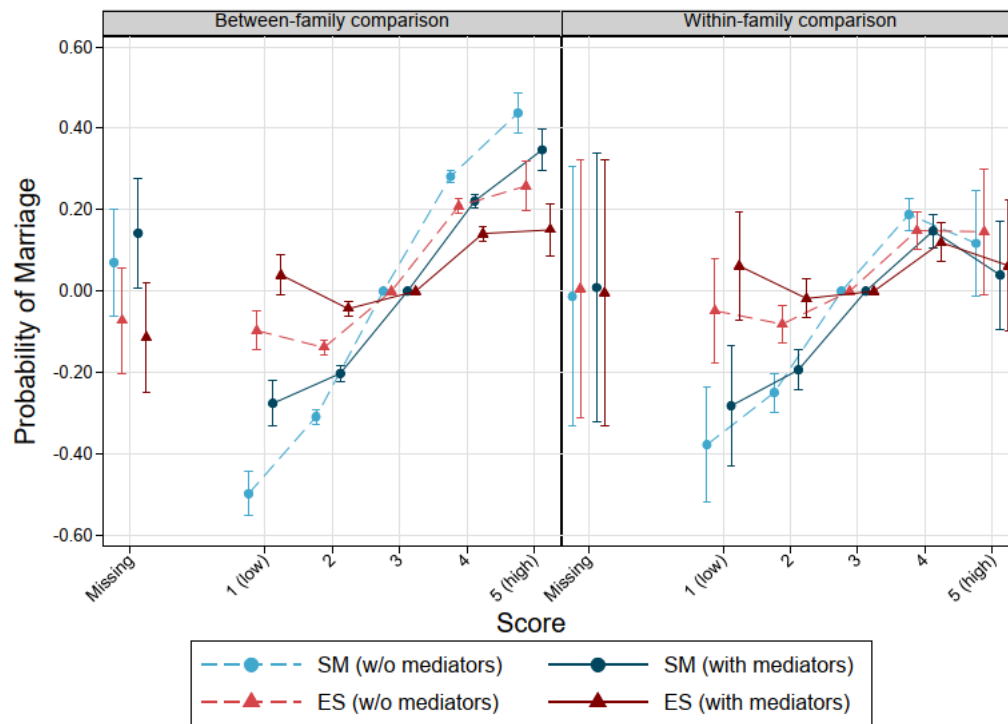
Note: Models control for social maturity, cognitive abilities, birth order, sibling group size, income and education. Birth cohorts 1963, 1964, 1978, and 1979 are not shown due to high statistical uncertainty (too few cases and too large confidence intervals). Coefficients from the category of missing values are not shown for the same reason.

Figure A33: The relationship between personality factors measured at ages 17-20 and childlessness by age 39 amongst Swedish men born 1963-1979. Logistic regression models, error bars are 95% confidence intervals.



Note: Models without mediators control for cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size. Models with mediators include income, education, and marital status additionally.

Figure 34: The relationship between personality factors measured at ages 17-20 and the probability to get married by age 39 amongst Swedish men born 1963-1979. Logistic regression models, error bars are 95% confidence intervals.



Note: Models without mediators control for cognitive abilities, birth year, birth order, and in case of between-family considerations for sibling group size. Models with mediators include income, education, and parental status additionally.

Stockholm Research Reports in Demography  
Stockholm University,  
106 91 Stockholm,  
Sweden  
[www.su.se](http://www.su.se) | [info@su.se](mailto:info@su.se) | ISSN 2002-617X



Stockholm  
University

---

**Demography Unit**