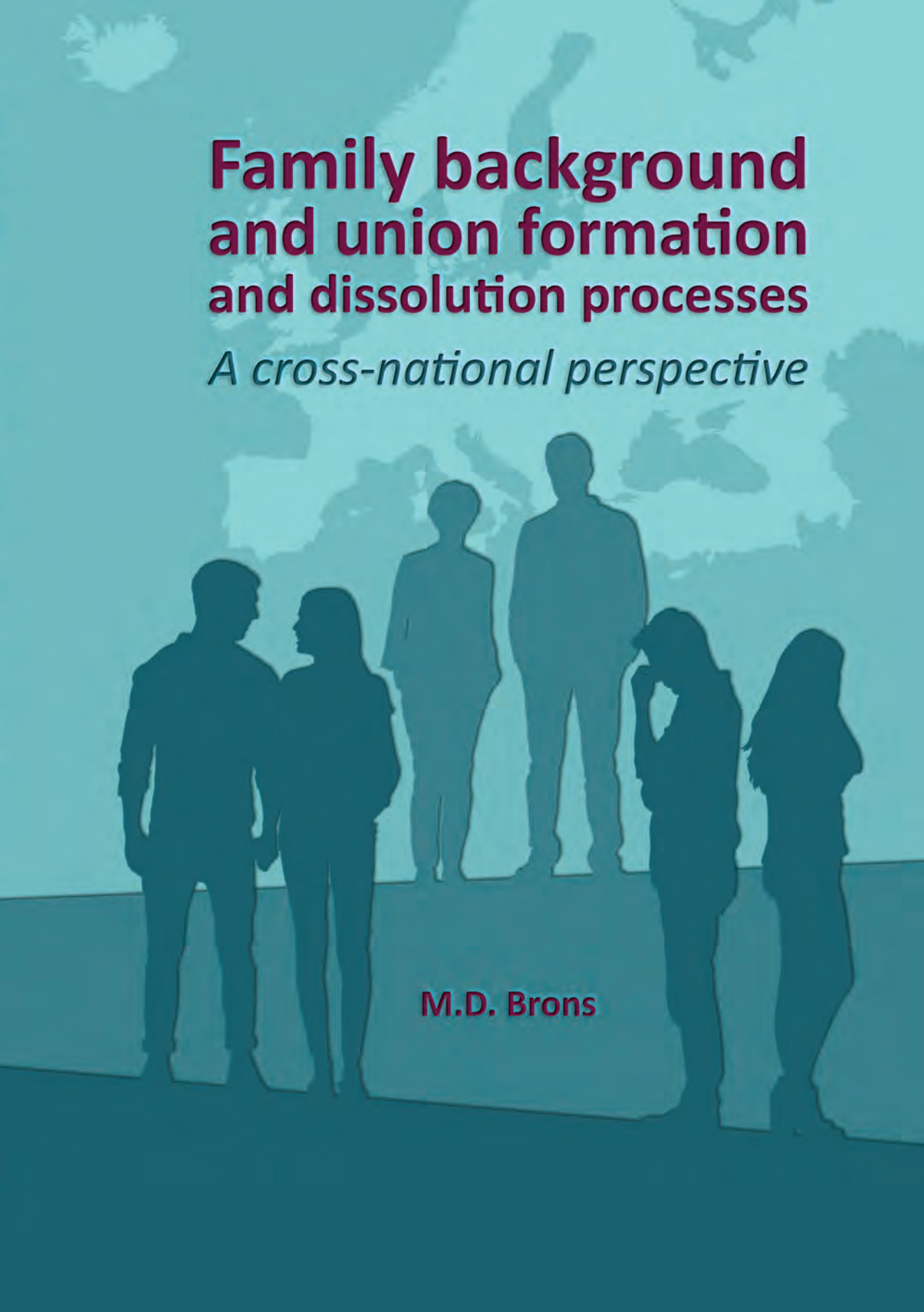
Family background and union formation and dissolution processes

A cross-national perspective



M.D. Brons

Family background and union formation and dissolution processes

A cross-national perspective

M.D. Brons

COLOFON

This dissertation is part of and financed by the European Research Council under the European Union's Seventh Framework Programme (FP/2007-2013) (number 324178) Project: Contexts of Opportunity (CONOPP) awarded to Aart C. Liefbroer). For more information, please visit www.conopp.com.

The author gratefully acknowledges the financial support for printing this dissertation by the Netherlands Interdisciplinary Demographic Institute (NIDI/KNAW/RUG).

Coverdesign by Rachel van Esschoten, DivingDuck Design
(www.divingduckdesign.nl)
Map cover by Free Vector Maps (http://freevectormaps.com)
Printed by Koninklijke van der Most

ISBN: 978-94-028-1876-5

VRIJE UNIVERSITEIT

Family background and union formation and dissolution processes

A cross-national perspective

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad Doctor
aan de Vrije Universiteit Amsterdam,
op gezag van de rector magnificus
prof.dr. V. Subramaniam,
in het openbaar te verdedigen
ten overstaan van de promotiecommissie
van de Faculteit der Sociale Wetenschappen
op donderdag 6 februari 2020 om 13.45 uur
in de aula van de universiteit,
De Boelelaan 1105

door

Marjanne Desirée Brons

geboren te Ermelo

promotoren: prof.dr. A.C. Liefbroer
prof.dr. H.B.G. Ganzeboom

leescommissie: prof.dr. J.J. Hox
prof.dr. R.J. Lesthaeghe
prof.dr. I. Maas
prof.dr. D. Manting
dr. A.R. Poortman

Summary

The main objective of this dissertation is to understand from a cross-nationally comparative perspective the link between family disadvantage and processes of union formation and dissolution. Previous studies show, in particular, that in a number of countries, young adults from advantaged families delay their first co-residential union, their first marriage, and often choose for cohabitation instead of marriage as first union compared to young adults from disadvantaged families. Thus, first of all, I analyze to what extent there is a link between family (dis)advantage and union formation and dissolution. In this dissertation, I focus on two indicators of family disadvantage that could influence union formation and dissolution of young adults, namely parental socio-economic status, measured by parental education and/or parental occupation (**Chapter 2, 3 & 5**) and parental separation (**Chapter 4**). With regard to union formation, I focus on both the timing of first co-residential union as well as the type of first union (**Chapter 2 & 4**), and the timing of first marriage (**Chapter 3 & 4**). Regarding union dissolution, which is the focus of **Chapter 5**, I analyze the dissolution from a childbearing union.

Second, a limitation of most existing research is that it has mostly examined the link between family (dis)advantage and union dynamics within a single societal context, while the link can be expected to vary between countries, due to cultural, economic and institutional differences between them. I focus on the Second Demographic Transition theory as a key explanation for this cross-national variation. According to the Second Demographic Transition theory, it can be expected that the impact of family disadvantage on union dynamics differs across societal contexts. The SDT theory argues that all countries will experience the consequences of growing individualization and the weakening of family ties, but starting at different points in time and with different speeds of diffusion. Because of these differences in the onset and speed of diffusion of these demographic and value-related changes, countries vary in the extent to which SDT-related values and behaviors have been adopted at a given point in time. Thus, in general, it can be expected that the impact of family (dis)advantage on young adults' union dynamics is weaker in countries that are further advanced in the SDT than in countries that are less advanced in the SDT. In more SDT-advanced countries, processes of individualization have progressed, making family ties less important. In each study a different SDT-indicator is used to test this general hypothesis.

In the four empirical studies, I used two large-scale and cross-national comparative datasets to answer the research questions, namely the third wave of the European Social Survey (ESS, 2006/2007 in **Chapter 2**) and the first wave of the Generations and Gender Programme (GGP, in **Chapter 3, 4 & 5**). Methodologically, a major innovative aspect of this dissertation is that I use meta-analytical tools instead of multilevel models to describe and explain cross-national variation in the link between family background and union formation and dissolution (see **Chapter 2, 3 & 5**).

The results for all four studies in this dissertation show, first of all, that family (dis)advantage, next to individual's own education, is an important determinant of union formation and dissolution processes. Young adults from disadvantaged backgrounds, for example, enter their first co-residential union, and their first marriage at an earlier age than the ones from advantaged backgrounds (**Chapter 2 & 3**). Moreover, children of divorce prefer unmarried cohabitation as first union and delay marriage compared to the ones from intact families (**Chapter 4**). Results with regard to union dissolution show that individuals from advantaged backgrounds have a higher risk to dissolve their union than the ones from disadvantaged backgrounds (**Chapter 5**).

The innovative aspect of this dissertation is the cross-national comparative perspective and the results of all four studies show that it is indeed important to take into account in which country young adults live when analyzing the link between family (dis)advantage and union dynamics, since this link varies considerably across countries. Moreover, results from this dissertation show that the Second Demographic Transition theory could partly explain the considerable cross-national variation in the link between family (dis)advantage and union dynamics. The country-specific cohabitation rate as SDT-indicator, for example, explains part of the cross-national variation in the link between parental SES and union formation (**Chapter 2**) and the divorce rate explains the cross-national variation in the link between parental SES and union dissolution (**Chapter 5**). However, one of the conclusions of this dissertation is that the SDT theory is not the complete explanation for the cross-national variation in the link between family (dis)advantage and union dynamics. On the one hand, the SDT offers a good explanation for part of the analyzed relationships, on the other hand it shows that it is more complicated than only related to the country-specific demographic and value changes, resulting from processes of individualization of secularization.

Table of Contents

Chapter 1

Synthesis:

Cross-national variation in the link between family disadvantage and union formation and dissolution processes*

* This chapter benefited from the feedback of Aat Liefbroer and Harry Ganzeboom.

Abstract

The main objective of this dissertation is to understand the link between family disadvantage and union formation and dissolution processes from a cross-national comparative perspective. According to the Second Demographic Transition theory, it can be expected that the impact of family disadvantage on these union dynamics differs across societal contexts. What are the theoretical and empirical challenges of such a study? I answer these questions through a collection of four independent, but related empirical studies. This introductory chapter synthesizes the research aims, findings, conclusions and discussions of the four studies included in this dissertation.

1.1 Introduction

The family of origin plays an important role in the demographic choices that young adults make. There is a large body of literature linking the socio-economic conditions and living arrangements that young adults experienced during childhood to their timing of demographic choices (e.g. Barber, 2001; Kiernan & Hobcraft, 1997; McLanahan & Percheski, 2008; Sigle-Rushton et al., 2005). Previous studies show, in particular, that in a number of countries, young adults from advantaged or high-status families delay their first co-residential union, their first marriage, and the birth of the first child compared to young adults from disadvantaged or low-status families (e.g. Axinn & Thornton, 1992; Barber, 2001; Dahlberg, 2015; South, 2001; Wiik, 2009). A first and foremost explanation why higher parental socio-economic status delays the demographic choices of their offspring is that the delay is due to the educational level and enrollment of young adults themselves. Higher-SES parents are likely to have higher educational aspirations for their children than lower-SES parents. As a result, children of advantaged families are motivated to invest more and longer in their educational career, which often leads them to delay romantic unions or parenthood at young ages (e.g. Axinn & Thornton, 1992; South, 2001). However, next to this achieved status of young adults, many existing studies indicate that there still remains a significant impact of young adults' ascribed status (e.g. Dahlberg, 2015; Mooyaart & Liefbroer, 2016; Wiik, 2009). Men and women with higher status parents tend to delay demographic transitions to later ages, even if one takes their level of education and actual enrollment in education into account. Explanations for this remaining link between family (dis)advantage and demographic choices are higher standards regarding their future partner or higher consumption aspirations among young adults from advantaged backgrounds (Axinn & Thornton, 1992; Easterlin, 1980; Oppenheimer, 1988). Another argument could be that high-SES parents socialize their children to enter a romantic union or a marriage at a later age than lower-SES parents (Wiik, 2009). Parents want to have a say in the union formation process, since it is one of the most serious decisions young adults face and which can have enduring negative consequences on the further life course if young adults form a union at an early age. Previous research shows, for example, that those who start a co-residential union young have a higher risk to dissolve that union compared with late starters (Lyngstad, 2006). A possible explanation why high-SES parents are more successful in persuading their offspring to avoid early entry into a union can be that these parents are more

aware of the potential negative consequences of choices made in the early life-course (Wiik, 2009).

Parental status influences not only the timing of demographic events, but also the actual choice of whether or not to make certain demographic choices, like cohabitation or union dissolution. Previous research shows that higher education has been associated with more liberal attitudes and values with regard to the choice to cohabit or to dissolve own's union (Liefbroer & Billari, 2010; Lyngstad & Jalovaara, 2010). High-SES parents are likely to transmit these values to their children, which can result in a higher probability to cohabit, but also a higher risk to dissolve a union for young adults from advantaged backgrounds.

Family instability, and more specifically, whether parents have separated while their children were young could be another aspect of family (dis)advantage that influences the demographic choices of young adults. Of all the changes in family life during the last century, the increase in the rate of divorce is one of the most far-reaching in its implications and consequences both for adults themselves and for their children (Amato, 2000). Parental separation has often been shown to be a negative and stressful experience for children (Amato, 2000). Previous research shows that children with divorced parents experience more mental and physical health problems than do children from intact families (Amato, 2012). Parental separation is also shown to be an important determinant of several demographic choices of young adults. Individuals who experienced parental divorce, compared with individuals from intact families, are more likely to have nonmarital births, report more problems in their own marriages and are more likely to divorce themselves (Amato, 2014). Moreover, children of divorce often leave their parental home earlier, opt for cohabitation as their type of first co-residential union, and postpone marriage or even decide not to marry compared to young adults from intact families (e.g. Blaauboer & Mulder, 2010; Raab, 2017; Wolfinger, 2003).

With regard to young adults' demographic choices, the focus in this dissertation is on union formation and dissolution, which I will call *union dynamics* from here onwards. Starting a co-residential union is one of the demographic choices that the majority of young adults make, but the timing, the type of union chosen and also the risk to dissolve a union are socially stratified. It is important to examine to what extent family (dis)advantage influences the union formation and dissolution process of young adults, since it can have potential negative consequences for their subsequent life course. People who enter a co-residential union at an

early age have, for example, a higher risk to dissolve this union (Berrington & Diamond, 1999). Moreover, previous research shows the consequences of unmarried cohabitation; cohabiters enjoy lower health quality, receive less social provisions and are also less committed to their relationship, which results in a higher risk to dissolve a union (e.g. Soons & Kalmijn, 2009). Finally, existing research also shows that people who dissolve a union can experience many negative consequences, such as lower well-being, economic hardship, and loss of emotional support (Amato, 2000).

The first research question this dissertation seeks to answer is:

To what extent is there a link between family (dis)advantage and union formation and dissolution? And to what extent does this link between family (dis)advantage and union formation and dissolution remain, after taking young adults' educational attainment into account?

Answering this first research question will increase our understanding of how social inequalities in the family domain are produced and reproduced, providing fresh insights into one of the key questions in social science.

Moderating role of the national context

A limitation of most existing research is that it has mostly examined the link between family (dis)advantage and union dynamics within a single societal context, while it can be expected to vary across countries, due to cultural, economic and institutional differences between countries. In societies where, for example, the family is more central, the effect of family (dis)advantage can be expected to be stronger than in societies in which individualism plays a greater role (Inglehart, 2006). A similar kind of expectation can also be formulated concerning the economic development of a country; in societies that are economically weaker, family (dis)advantage can be expected to have a stronger effect on demographic choices of young adults (Schneider & Hastings, 2015). This is because young people in these countries are more dependent on their parents and their resources. Welfare arrangements also play an important role here, because if a society has a non-generous welfare regime, young people are generally more dependent on their parents and their resources, so the influence of family

(dis)advantage can be expected to be stronger in these societies (Esping-Andersen, 1990; Bäckman, 2008).

In order to understand the role of demographic choices in producing and reproducing social inequalities from a cross-national comparative perspective, the studies reported in this dissertation, first of all, will establish whether cross-national variation exists in the link between family (dis)advantage and young adults' union formation and dissolution processes. Moreover, the aim of this dissertation is to improve our understanding of why this cross-national variation in the link between family (dis)advantage and union dynamics comes about. To do so, I will focus on the Second Demographic Transition theory as a key explanation for this cross-national variation. I will elaborate on the choice of this theoretical orientation in the next section. The second research question this thesis, therefore, aims to answer is:

To what extent does cross-national variation exist in the link between family (dis)advantage and union formation and dissolution? And to what extent can the Second Demographic Transition theory explain this variation across countries?

Thus, next to the fact that it can be expected that family (dis)advantage influences the union dynamics of young adults, it can also be expected that this influence varies across countries and thus depends on the country in which young adults live.

Combining the family context with the societal context makes this dissertation innovative and relevant. The four studies, included in this dissertation, are one of the few cross-national comparative studies that analyze the link between family (dis)advantage and union formation and dissolution. Moreover, if we understand why family (dis)advantage is more important in some countries than in others, for example, due to differences in cultural norms and values, we have unraveled one piece of the bigger question why the level of social inequality differs considerably across countries.

1.2 Second Demographic Transition (SDT) theory

In order to analyze cross-national variation in the link between family (dis)advantage and union dynamics, I derived hypotheses mainly from one well-known demographic theory,

called the Second Demographic Transition (SDT) theory, first proposed by Lesthaeghe and Van de Kaa in 1986. It is called the Second Demographic Transition to mark a distinction with the First Demographic Transition. During the first demographic transition, which began in the early 1800s and continued into the early 1900s in Western industrialized countries, mortality and fertility declined mainly due to industrialization and in particular associated social and economic development, modernization, improvements in food supply and sanitation.

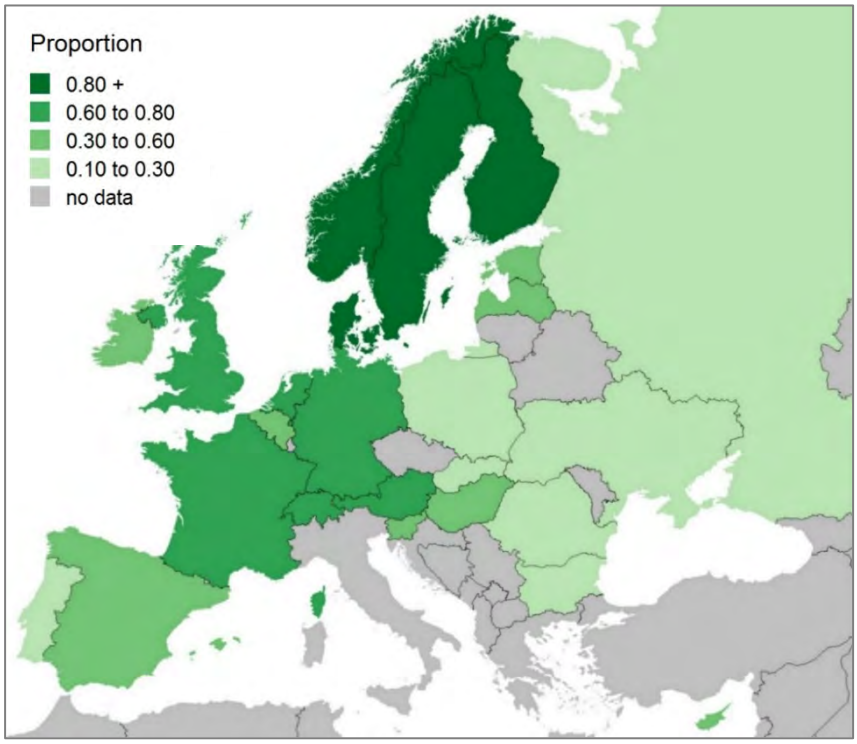
Since the 1960s/1970s, the SDT started and primary trends of this second transition include delays in fertility and marriage and increases in cohabitation, divorce and non-marital childbearing (McLanahan, 2004; Van de Kaa, 1987; Zaidi & Morgan, 2017). The Second Demographic Transition (SDT) theory has often been used to describe and explain cross-national variation in family and living arrangements (Lesthaeghe, 2010; Sobotka, 2008; Van de Kaa, 2001). According to SDT theory, the major demographic changes across Europe and North-America (e.g., decline in marriage rate, growth of cohabitation, and postponement of union formation) in the twentieth century are the result of changes in values and attitudes (Lappegård, Klüsener, & Vignoli, 2014; Lesthaeghe, 2010; Lesthaeghe & van de Kaa, 1986). According to the SDT theory, improved living standards, weakened normative regulation, and increased female autonomy have resulted in an increasing demand for self-development, autonomy and individualism (Lesthaeghe, 2010; Sobotka, 2008; Van de Kaa, 1987; 2001). These value changes manifested themselves in various demographic changes, like increased acceptance of cohabitation, below-replacement fertility and rising divorce rates. Moreover, due to these value changes, important socializing institutions, such as the church and the family, have lost some of their grip on their members and wider society (Lesthaeghe, 2010; Sobotka, 2008). Processes of individualization and secularization imply that individuals enjoy more freedom of choice and attach greater importance to self-fulfillment, self-development and autonomy (Lesthaeghe, 2010). Due to this focus on autonomy, young adults may have become less responsive to their parents' preferences and less dependent on their parents' resources. It can, therefore, be expected that the impact of family (dis)advantage on their offspring's union dynamics is weaker in more secularized and individualized societies.

The SDT theory argues that all countries will experience the consequences of growing individualization, secularization and the weakening of family ties, but starting at different points in time and with different speeds of diffusion. Because of these differences in the onset and speed of diffusion of these demographic and value-related changes, countries vary in the

extent to which SDT-related values and behaviors have been adopted at a given point in time (Lappegård et al., 2014; Sobotka, 2008). Earlier research shows that Sweden and Norway are SDT-forerunners (e.g., high cohabitation and divorce rates and high level of individualistic values), followed by Western, Eastern and Southern European countries (Lesthaeghe, 2010; Sobotka, 2008). Figures 1.1 and 1.2 show two SDT-indicators for 25 European countries from the ESS (2006), both related to unmarried cohabitation. The proportion of adults who cohabit as their first co-residential union is used as an institutional indicator (Figure 1.1), while the proportion of people who disapprove of unmarried cohabitation is used as an attitudinal indicator (Figure 1.2). For both figures, the SDT pattern is clearly visible. In Northern European countries the cohabitation rate is highest (more than 0.80, thus over 80%), followed by Western, Eastern and Southern European countries. Moreover, in Northern European countries, few people disapprove of unmarried cohabitation (less than 10%), while especially in Eastern European countries this proportion still above 0.30.

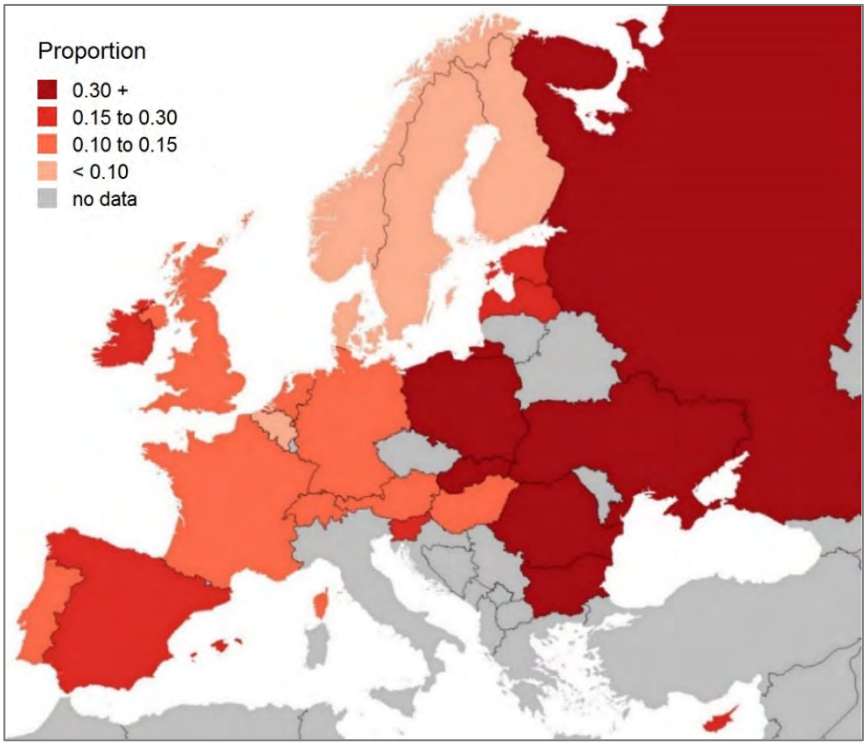
Both figures show considerable cross-national variation with regard to the demographic changes that all Western countries have experienced. Some countries are further advanced in these demographic changes, as suggested by the SDT theory, than other countries. Because of these country differences with regard to the SDT, the general cross-national hypothesis examined in this dissertation is that *the impact of family (dis)advantage on young adults' union dynamics is weaker in countries that are further advanced in the SDT than in countries that are less advanced in the SDT.* In more SDT-advanced countries, processes of individualization have progressed, making family ties less important. In countries where the SDT and related individualization processes are more advanced, young adults can become detached from their disadvantaged family background, and develop themselves and make their own choices, while in countries where the SDT and individualization are less advanced, young adults are still very dependent on their parents and their preferences and resources. Therefore, I expect a weaker link between family (dis)advantage and union dynamics in countries where the SDT is more advanced. In all four studies of this dissertation this general hypothesis is tested, with every study including a different indicator for family (dis)advantage (e.g. parental SES and parental separation) and/or union dynamics (e.g. first union formation, marriage formation and union dissolution). Moreover, in each study a different SDT-indicator is used.

Figure 1.1. The proportion of adults who cohabit as their first co-residential union, born between 1960 and 1980.



Source: European Social Survey, 3rd wave (2006), own calculation. Cartography: Peter Ekamper / NIDI.

Figure 1.2. The proportion of adults who (strongly) disapprove unmarried cohabitation.



Source: European Social Survey, 3rd wave (2006), own calculation. Cartography: Peter Ekamper / NIDI.

1.3 Data & Methods

Data

In this dissertation, I used two large-scale and cross-national comparative datasets to answer the research questions, namely the third wave of the European Social Survey (ESS, 2006/2007) and the first wave of the Generations and Gender Programme (GGP, see for more information Fokkema et al., 2016). Moreover, in some studies I added data on two additional countries, namely the United Kingdom and the United States, from the Harmonized Histories (HH) dataset which are made comparable to the GGP data (Perelli-Harris, Kreyenfeld & Kubisch, 2010).

In the first study of this dissertation, I used the ESS data. This dataset includes 25 European countries and consists of detailed information about parental socio-economic status (both education and occupation) and the timing of first union formation. Because the GGP has more detailed information about the whole partnership history of respondents, this dataset is used in the remainder of the studies (study 2 - 4) included in this dissertation. Moreover, information about parental separation and individuals' own union dissolution was only available in the GGP data, making it the natural choice for study 3 and 4.

The definition of union dynamics in this dissertation

In three out of the four studies in this dissertation, union formation is the main dependent variable, but this variable is measured slightly different in each study (see also Table 1.1). In Study 1, I analyze the timing of young adults' first co-residential union (irrespective of whether it is cohabitation or marriage) and the type of this first union (cohabitation or marriage). In Study 2, I focus on the timing of first marriage, but taking into account whether or not young adults cohabited before entry into marriage. In Study 3, I examine all these different measures of union formation, namely first co-residential union, the type of first union as well as first marriage in combination, but focus on parental separation, rather than parental SES as the key indicator of family (dis)advantage. In Study 4 of this dissertation, I focus on another aspect of union dynamics, namely union dissolution, or more precisely, the dissolution from a childbearing union.

The definition of family (dis)advantage in this dissertation

Although family (dis)advantage of young adults is the central concept throughout this dissertation, I focus on different aspects of this concept in the different empirical studies. In all four studies, I use the socio-economic status of parents as an indicator of family (dis)advantage. In Study 1, I measure parental SES by the occupation and education of both father and mother. In the second and the fourth study I only use the education of both parents as an indicator for parental SES, because the occupation of parents was not available for all the countries included in these studies. In Study 3, parental separation is the main independent variable measuring family disadvantage, but parental education is also included in all models. Next to parental education as the main independent variable, parental separation is also included in the fourth study.

Methods

Methodologically, a major innovative aspect of this dissertation is that I use meta-analytical tools instead of multilevel models to describe and explain cross-national variation in the link between family background and union formation and dissolution. The motivation for using meta-analytical tools is the relatively modest number of countries ($N < 30$) included in my empirical analyses. The standard error (SE) of country-level effects is underestimated in standard multilevel models if the number of countries is small, resulting in too many incorrect rejections of a true null hypothesis (Bryan and Jenkins, 2016). The meta-analytical tools that I use offer a more conservative test of our hypotheses than the multilevel approach.

As suggested by Bryan and Jenkins (2016), I use a two-step method, which is elsewhere known as meta-analysis (Snijders & Bosker, 2012). In the first step, I perform separate analyses for each country and use all these country-specific estimates and SEs to perform a meta-analysis of variance to test whether cross-national variation exists in the link between family (dis)advantage and union dynamics (Harris et al., 2008). In a second step, if substantial variation across countries is found, a meta-regression is performed to examine to what extent this cross-national variation can be explained by including several country-level indicators (Harbord & Higgins, 2008).

Only in study 3 do I use country fixed-effects models (thus, including country-dummies) instead of meta-analytical tools to study how the country context influences the relationship between parental separation and union formation. In this study, we are not only interested in

the differences between countries, but we also take the temporal dimension (change over historical time) into account.

1.4 Overview of dissertation

Table 1.1 provides an overview of the empirical studies in this dissertation. For each study, the table states the co-author(s), the dependent and independent variables, the data and methods used and the main conclusions.

Table 1.1 Overview of dependent and independent variables, data and methods used and conclusions per study.

	Co-Author(s)	Dependent variable	Independent variables	Data	Method	Conclusions
Study 1	A.C. Liefbroer & H.B.G. Ganzeboom	Timing of first co-residential union & type of first union	Parental SES *(parental occupation & education)*	ESS *(25 countries)*	Meta-analytical tools	The higher parental SES, the later young adults enter their first union (mainly driven by direct marriage), even after controlling for own education. This link varies across countries and can partly be explained by the SDT and the educational expansion in a country.
Study 2	A.C. Liefbroer & H.B.G. Ganzeboom	Timing of first marriage	Parental SES *(parental education)*	GGP & Harmonized Histories *(20 countries)*	Meta-analytical tools	Young adults from advantaged backgrounds delay their first marriage. However, once young adults start to cohabit, parental SES does not affect the timing of marriage anymore. This link varies across countries, but this variation cannot be explained by the SDT.
Study 3	J. Härkönen & J. Dronkers	First co-residential union, type of union & first marriage	Parental separation	GGP & Harmonized Histories *(16 countries)*	Fixed effect model (with country dummies)	Children of divorce enter marriage later and more often choose for cohabitation as first union than children from intact families. Moreover, the association between parental separation and partnership formation depends on the importance of marriage as the context for intimate and family life which varies across countries and over time. Children of divorce have been early adapters in the SDT developments.
Study 4	J. Härkönen	Risk to dissolve a childbearing union	Parental SES *(parental education)*	GGP & Harmonized Histories *(17 countries)*	Meta-analytical tools	Young adults from advantaged backgrounds have a higher risk to dissolve a union, even after controlling for important mediators like individuals' own education. This link varies across countries and this variation can be explained by the SDT.

1.5 Main results

In this section, I summarize the main findings and conclusions from the four empirical studies included in this dissertation.

Study 1: Parental SES & union formation

This study examines how parental SES, measured by an index based on information about parental education and occupation, influences entry into a first union. We look at the timing of this first union, and whether young adults enter it by marriage or by unmarried cohabitation. With regard to the link between family (dis)advantage and the timing of entry into a union, we argue that young adults from high-status families will enter into their first co-residential union later than young adults from low-status families and results from Study 1 show that this is indeed the case. With regard to the type of first union, we expect that the association between parental SES and the timing of first union will be stronger for direct marriage than unmarried cohabitation. This study confirms this expectation; the delaying effect of parental SES on the timing of first union is mainly due to young adults who marry directly. In general, there is almost no effect of parental SES on the timing of first union if this union is a cohabiting relationship.

The first interesting finding from this study is that the strength of the link between family (dis)advantage and first union formation varies considerably across countries. But how can this variation across countries in the link between family (dis)advantage and union formation be explained? Based on the SDT theory, we hypothesize that the impact of family (dis)advantage on union formation will be weaker in countries that are more advanced in the SDT. Within this study, we use three country-level SDT indicators as possible explanations for the cross-national variation, namely the country-specific prevalence of cohabitation, level of religiosity and the country-specific age-norm of leaving the parental home. Some of these SDT-indicators indeed explain some of the cross-national variation in the link between family (dis)advantage and union formation (namely the prevalence of cohabitation and the age norms of leaving the parental home), while the level of religiosity did not explain the observed cross-national variation. Differences in the timing of first union between young adults from advantaged and disadvantaged backgrounds are smaller in countries were cohabitation is

more common. Moreover, the higher the age-norm of leaving the parental home, the bigger the differences in the timing of first union between young adults from advantaged and disadvantaged backgrounds.

Often, an individual's own educational attainment is suggested to be an important mediator in the link between parental SES and the timing of first union and this study finds support for the importance of this factor. Still, even after controlling for individuals' own educational level and educational enrollment, the results of this study still show a significant, though somewhat reduced, delaying effect of parental SES on the timing of first union. However, once own education and enrollment are included as mediators into the models, the variation across countries completely disappears. Thus, country differences in achieved educational level are also an important explanation for the cross-national variation in the link between parental SES and first union formation.

Study 2: Parental SES & marriage formation

In the second study, we analyze the link between parental SES, measured by parental education, and the timing of first marriage. We argue that young adults from high-status families will enter into their first marriage later than young adults from low-status families. The results show that young adults from advantaged backgrounds not only delay their first union (as shown in Study 1), but also delay first marriage compared to young adults from disadvantaged backgrounds. Since we know from the first study that individuals' own education is an important mediator, we also included this indicator into the models of Study 2. Results show, in general, that the higher young adults' educational level is, the more they delay entry into a first marriage. In line with Study 1, this study also shows that even after taking individuals' own level of education into account, higher parental SES still leads to postponement of the timing of first marriage. Moreover, considerable cross-national variation in the link between parental SES and marriage formation remains, also after controlling for young adults' own educational attainment. This finding is in contrast with Study 1, but we have to keep in mind that Study 1 made use a different dataset and included more countries than Study 2.

Another question that is examined in this study is whether parents' SES only influences their children's marriage timing as long as they are not cohabiting with a partner, or that parental SES still matters even after their children have started to cohabit. It has become

increasingly common to cohabit prior to marriage, which makes it interesting to include the cohabitation history into the link between parental SES and marriage timing. It can be expected that the impact of parental SES is weaker after young adults cohabit. Life events, such as obtaining a job and leaving the parental home, often change the relationship between parents and their children. When young adults live together with their partner and form their own household, they become usually less dependent on their parents. This study shows indeed that the impact of parental SES on marriage timing significantly weakens once young adults start to cohabit.

Given the different meaning of cohabitation across countries, cross-national variation can be expected in the link between parental SES and first marriage. We use cluster analysis to construct a country-level cohabitation typology, based on four SDT-related items (prevalence of cohabitation, proportion of nonmarital births, proportion of people who married or dissolve their union within two years). The cluster analysis indicated four different clusters of countries, namely (1) cohabitation as prelude to marriage, (2) cohabitation as trial marriage, (3) cohabitation as alternative to marriage and (4) cohabitation as the norm. These clusters strongly align with the stages of the cohabitation transition as suggested by other existing studies, as well as with the SDT-country pattern. However, the constructed cohabitation typology could not explain the cross-national variation in the link between parental SES and marriage timing.

Study 3: Parental separation & union formation

In Study 3 we focus on another family disadvantage indicator, namely parental separation and how this indicator affected the union formation process of young adults. First of all, we expect that having separated parents, so coming from a disadvantaged background, is associated with lower rates of marriage and higher rates of cohabitation, which is in line with existing studies on this topic. Children of divorce are suggested to be the "forerunners" of family change (SDT developments, like increase in cohabitation and nonmarital birth) or the deinstitutionalization of marriage. However, few studies have analyzed these relationships over time or across countries and no studies have systematically analyzed contextual factors that might moderate this relationship. In this study we analyze two possible contextual factors, namely the overall incidence of parental separation and non-marital birth rates (as indicator for the strength of the institution of marriage). We expect that differences in

partnership formation patterns by parental separation are small when marriage is highly normative, and cohabitation is viewed as a marginal phenomenon. When cohabitation becomes more acceptable, the gaps would grow if children of divorce are indeed the forerunners of this change. However, when cohabitation as first union form becomes next to universal, the differences by parental separation can again diminish. With regard to marriage, we have similar expectations; the gaps in foregoing marriage are expected to be minor when marriage is strongly institutionalized, but widen when its grip on family life weakens. The prevalence of parental separation can also modify the differences in partnership formation patterns by parental separation. According to the "waning effect" argument, the effect of parental separation is expected to be weaker when parental separation is more prevalent. Children of divorce may differ less from those from intact families in characteristics that predict partnership formation patterns once parental separation is a more common experience.

Results from Study 3 show that children of divorce are more likely to have cohabited and less likely to have married, whether directly or overall, than young adults from intact families. Moreover, the findings of this study do not support the waning effect hypothesis, but support the "forerunner" hypothesis. Children of divorce have higher rates of cohabitation when marriage is more institutionalized (measured by low non-marital birth rates), but this gap becomes smaller as young adults from intact families catch up in their rates of cohabitation. This study also shows that children of divorce have been forerunners in the retreat from marriage. When marriage is institutionalized, children of divorce may even have higher rates of marriage than those from intact families, but as the deinstitutionalization of marriage proceeds, children of divorce are among the first ones to retreat from it.

Study 4: Parental SES & union dissolution

Many previous studies focused on the intergenerational transmission of divorce, both in single countries and from a cross-national comparative perspective. However, only a few studies analyzed the link between parental SES and the risk to dissolve a union and these studies were all conducted in single countries. Therefore, in the last study of my dissertation I focus on the link between parental SES, as indicator of family (dis)advantage, and union dissolution, or more specifically, the risk to dissolve from a childbearing union in 17 different countries. Parental SES is measured by parental education. We study the dissolution of first childbearing

unions, since this indicator is a better measure of family instability than divorce, given the high cohabitation rates in the countries we analyze. It can be expected that individuals from advantaged backgrounds have a higher risk to dissolve their union, due to class-related sociocultural factors or due to the financial support from these parents. These sociocultural factors from the higher-class backgrounds are related to a "bourgeois culture" in which divorce is more accepted. Moreover, better-educated parents are in a better situation to financially support their children if they dissolve their union.

First of all, results from this study show that parental SES still influences the risk to dissolve a union, next to some important mediators, namely young adults' own educational status, parental separation and the timing of union formation. Adults with highly educated parents have a higher risk to dissolve a union than adults with lower educated parents.

With regard to the cross-national perspective, we expect that the link between parental SES and union dissolution is weaker in countries with a generous welfare state, because parental financial support is less needed in these countries. Moreover, we expect that this link is also weaker in countries where divorce is more common (high divorce rates). The results of this study show that the strength of the link between family (dis)advantage and union dissolution varies considerably across countries. This is in line with earlier research on the link between own educational attainment and family dissolution, although the variation found in Study 4 appears less dramatic than the one between own education and family dissolution. Although the size of the relationship between parental education and family dissolution varies considerably, it is generally positive whereas the educational gradient of family dissolution has more clearly varied both in size and in sign.

Study 4 also shows that the cross-national variation could be explained by a SDT-indicator, namely the average crude divorce rate[1]. The strength of the link between parental SES and union dissolution is weaker in countries where the divorce rate is higher (so in countries that are further advanced in the SDT). Another country-level indicator, namely the generosity of the welfare state, could not explain the cross-national variation in the link between parental SES and union dissolution.

Existing research on the link between education and family dissolution showed a changing educational gradient in family dissolution, which could be either in the parental or

[1] After excluding Russia from the sample, since this was an outlier with regard to the crude divorce rate.

in the filial generations. Therefore, we also analyze, next to the variation across countries, whether the link between parental SES and family dissolution changed over time. However, only in six countries we found that the impact of parental SES on union dissolution became less positive or even negative over time.

1.6 Conclusions & Discussion

In this dissertation, I analyze the link between family (dis)advantage and union formation and dissolution from a cross-national comparative perspective. The focus of this dissertation is on two general research questions, namely

"*To what extent is there a link between family (dis)advantage and union formation and dissolution? And to what extent does this link between family (dis) advantage and union formation and dissolution remain, after taking young adults' educational attainment into account?"*

and

"*To what extent does cross-national variation exist in the link between family (dis)advantage and union formation and dissolution? And to what extent can the Second Demographic Transition theory explain this variation across countries?".*

Research on the social stratification of union formation and dissolution focused largely on individuals' own educational attainment and enrollment as important determinants (e.g. Blossfeld & Huinink, 1991; Härkönen & Dronkers, 2006). With regard to the first research question, I can conclude that next to individuals' own education, also family (dis)advantage or family background is important in explaining the processes of union formation and union dissolution. Young adults from disadvantaged backgrounds, for example, enter their first co-residential union, and their first marriage at an earlier age than the ones from advantaged backgrounds. However, this difference between young adults from advantaged and disadvantaged backgrounds regarding marriage timing disappears once young adults start to cohabit. Moreover, this dissertation shows that parental SES not only influences union

formation, but also union dissolution. Individuals from advantaged backgrounds have a higher risk to dissolve their union than the ones from disadvantaged backgrounds. The results from the four studies show that parental SES does not only influence the demographic choices of young adults because children of high SES parents obtain higher educational levels (and thereby make other demographic choices). There are more reasons why children from disadvantaged and advantaged backgrounds behave differently on the partner market (think of differences in norms and values, parental preferences, but also parental resources).

Another family (dis)advantage indicator analyzed in this dissertation is parental separation and results show that this indicator also influences the union formation process. Children of divorce prefer unmarried cohabitation as first union and delay marriage compared to the ones from intact families. By controlling for parental SES, it is likely that the link between parental separation and union formation does not only derive from economic deprivation. Rather, differences in union formation between children from divorced and intact families are likely to results from differences in norms, values and preferences as well.

As already mentioned, demographic choices made during young adulthood can have potential negative consequences for the subsequent life course. Young adults who enter a co-residential union at an early age have, for example, a higher risk to dissolve this union (Berrington & Diamond, 1999). This thesis shows that these demographic choices, that can result in negative consequences later in life, are not always related to young adults from disadvantaged family backgrounds. Study 4, for example, shows that adults with high educated parents have a higher risk to dissolve a union. Moreover, findings from Study 3 show that young adults with separated parents delay first marriage, although this postponement can also result in no marriage at all, which can have negative consequences such as less improved health and less commitment to the relationship.

Although the results of all four studies in this dissertation show that family (dis)advantage is an important determinant of union formation and dissolution processes, we still do not know what the exact mechanisms are that play a role in the link between family (dis) advantage and demographic choices. In this dissertation, I tested for one potential mechanism, namely the intergenerational transmission of education, and results show that this mechanism only partly explains the link between family (dis)advantage and union dynamics. Previous research suggests some other important mechanisms that might explain this link, like the socialization of norms and values, more liberal attitudes or more resources.

Do high status parents socialize their children to start, for example, a romantic union at a later age? Do high-SES parents have more liberal attitudes towards cohabitation and union dissolution, which they transmit to their children and result in a higher probability to cohabit or to dissolve a union for young adults from advantaged backgrounds? Or does it have to do with the (financial) resources that parents have and transmit to their offspring? Many follow-up questions related to potential mechanisms between family (dis)advantage and union dynamics of which we do not yet know the answer, but which would be very interesting for future research, could be formulated. However, to date, there is only limited data available in which detailed questions are asked about these potential mechanisms, especially at the country-comparative level. Thus, I would like to see more questions related to possible mechanisms such as the transmission of norms, values and attitudes included in major data collection projects like the ESS and the GGP.

Another innovative aspect of this dissertation is the cross-national comparative perspective in the link between family (dis)advantage and union formation and dissolution processes. As already mentioned, it can be expected that this link varies across countries, due to economic, cultural and institutional differences between countries. For example, in more individualistic countries or economically well-developed countries, it can be expected that family (dis)advantage plays a less important role, since young adults are often less dependent on their parents and their resources. This dissertation shows that it is indeed important to take into account in which country young adults live when analyzing the link between family (dis)advantage and union dynamics, since this link varies considerably across countries. This finding of cross-national variation is related to the second research question of this dissertation, in which I not only focus on whether there are differences between countries, but also on how this cross-national variation can be explained. In three of the four studies in this dissertation, I use meta-analytical tools to first analyze whether there is cross-national variation and if so, in a second step test whether this cross-national variation can be explained by country-level indicators. The advantages of these meta-analytical tools are that these analyses can also be done with a small number of countries and that the country differences are clearly and graphically displayed.

In this dissertation, I have used the SDT theory as the major source of explanation to explain cross-national variation in the relationship between family background and union formation and dissolution processes. In my study, I use a variety of SDT-related indicators. In

my view, this variety is important as the SDT-theory emphasizes change in multiple demographic processes. Therefore, indicators of several of these processes are included in this dissertation as possible explanations for the cross-national variation in the link between family (dis)advantage and union dynamics. Results from the four studies show that some SDT-indicators could indeed explain (part of) the considerable cross-national variation in the link between family (dis)advantage and union dynamics. The country-specific cohabitation rate, for example, explains part of the cross-national variation in the link between parental SES and union formation (Study 1) and the divorce rate explains the cross-national variation in the link between parental SES and union dissolution (Study 3).

However, one of the conclusions of this dissertation is that the SDT theory is not the complete explanation for the cross-national variation in the link between family (dis)advantage and union dynamics. In Study 2, for example, the cohabitation typology based on four SDT-related items, does not explain the link between parental SES and marriage timing and in Study 3, the overall prevalence of parental separation was not an explanation for the link between parental separation and union formation. This dissertation shows that on the one hand, the SDT offers a good explanation for part of the analyzed relationships, on the other hand it shows that it is more complicated than just focusing on the country-specific demographic and value changes, resulting from processes of individualization of secularization. Next to these country-level indicators that focus more on the cultural change in norms and values of people in a country, institutional and also economic country-level indicators might also play a role. Results from Study 1 show, for example, that, next to SDT-related indicators, also the educational expansion of a country explains the link between parental SES and union formation. The SDT theory already suggests that demographic changes are driven by both cultural (values) as well as structural factors (such as the rise of higher education) (Lappegard et al., 2014). More specifically, Lesthaeghe (2010) highlighted change in the educational composition of western societies as a major contributor to the SDT process, but this has not been analyzed yet. Moreover, Mills and Blossfeld (2013) argue, for example, that the degree of economic uncertainty that young adults face when they make demographic choices, such as union formation and dissolution, is also important. It can be expected that the lower the degree of uncertainty, the less young adults depend on their parents. This level of dependence on the family of origin and the uncertainty that young adults face, are linked to the country-specific culture, but next to this also to the economic possibilities and

institutional support from the state. In general, SDT critiques (e.g. Mills & Blossfeld, 2013; Zaidi & Morgan, 2017) have argued that the SDT-theory has ignored the role of domestic path-dependent institutions, like the welfare regime, the employment systems and the educational system. Cross-national differences in family patterns are accounted for by differences in these path-dependent institutions. In countries with social-democratic regimes young adults make the transition to partnership easier than in countries with conservative welfare regimes. Moreover, educational systems differ in the amount of time spent in schools and the link to the labor market. All these factors influence the degree to which young adults face uncertainty and exacerbate inequality by offering more opportunities to young adults from advantaged backgrounds.

The last thing we have to keep in mind regarding the SDT-theory is that this theory is a developmental theory, so an important question is also to know what is happening over time, in addition to the country differences found in this dissertation (Thornton, 2013). Next to the country differences, it can also be expected that the impact of family (dis)advantage on union dynamics varies between birth cohorts. In Study 1, 3 and 4, I also analyze the change over time in the impact of family (dis)advantage on union dynamics, but in the majority of the studies it is not the main focus, since this impact did not change that much over time. Moreover, many relevant macro-level indicators did not go that far back in time, which makes it harder to analyze the change over time. In general, the results of the four studies show that the differences between countries in the link between family (dis)advantage and union dynamics looks more important than the differences in this link over time. However, it would be interesting for future research to also include the temporal dimension, next to the cross-national dimension, especially if more data over a bigger time span is available. There is a clear need for more longitudinal analyses on this topic, so that it is possible to better disentangle the temporal and cross-national dimensions.

Chapter 2

Parental socio-economic status and first union formation: Can European variation be explained by the Second Demographic Transition theory?*

* A slightly different version is published as: Brons, M.D., Liefbroer, A.C. & Ganzeboom, H.B.G. (2017), Parental socio-economic status and first union formation: Can European variation be explained by the Second Demographic Transition theory? ***European Sociological Review*** 33 (6): 809–822. Brons wrote the main part of the manuscript and conducted the analyses. Liefbroer and Ganzeboom substantially contributed to the manuscript. The authors jointly developed the idea and design of the study. Earlier versions of this chapter were presented at the Chaire Quetelet conference (Louvain-la-Neuve, 2014), Dutch Demography Day (Utrecht, 2014), Day of Sociology (Amsterdam, 2015) and the ISA-RC28 (Tilburg, 2015).

Abstract

Previous research has demonstrated that parental socio-economic status (SES) is an important determinant of the timing of entry into a first co-residential union. Whilst the majority of existing studies found that young adults from high-SES families delay their first union compared with those from lower-SES backgrounds, all these studies were conducted within a single country. This study examines the link between parental SES and the timing and type of first union for 25 European countries participating in the European Social Survey Round 3 (2006/2007). Results from two-step meta-analytical models indicate that in almost all countries young adults from advantaged backgrounds delay their entry into a first union. This delaying effect of parental SES is stronger if young adults marry directly than if they enter their first union via unmarried cohabitation. The impact of parental SES is only partly mediated by an individual's own education. The strength of the link between parental SES and union formation varies between countries: the delaying impact of parental SES is weakest in those North-Western European countries that are most advanced in the Second Demographic Transition. However, after controlling for individual education, the cross-national variation in the link between parental SES and union formation disappears.

2.1 Introduction

Parental socio-economic status [SES] has consistently been found to be an important determinant of the timing of entry into a first co-residential union (either unmarried cohabitation or marriage). Most studies have found that young adults from low-SES families enter their first co-residential union earlier than those from a high-SES background (e.g., Axinn and Thornton, 1992; South, 2001; Wiik, 2009). People who enter a union at an early age face potential negative consequences for their subsequent life course, such as a higher risk of dissolving the union (Berrington and Diamond, 1999). It is important to examine how socio-economic origin influences the timing of first union.

Most studies on the link between parental SES and first-union timing have examined this within a single country, but arguments derived from Second Demographic Transition (SDT) theory suggest that the strength of this link could vary across countries. SDT theory posits that demographic changes result from shifts in value orientations in Western countries, from solidarity and conformity to autonomy, self-reliance, and individual freedom (Lesthaeghe, 2010; Lesthaeghe and Van de Kaa, 1986; Sobotka, 2008). Due to this process of individualization, socializing institutions, such as the church and family, have lost some of their functions. If this is the case, it can be expected that the influence of parental status on the demographic behaviour of their children is weaker in societies that are more advanced in the SDT (Sobotka, 2008). No cross-country studies have yet examined the link between parental SES and first-union timing. Therefore, the key contribution of this study is to examine *to what extent the effect of parental SES on the timing of first co-residential union varies across European countries and how this cross-national variation can be explained.* We analyse data on 25 European countries from Round 3 of the European Social Survey (ESS, 2006). This study improves our understanding of cross-national variation by examining the role of three country-level SDT indicators that might moderate the strength of the link between parental SES and union formation: age norms of leaving the parental home, prevalence of cohabitation, and religiosity.

Most studies on the link between parental SES and union formation analysed the timing of entry into a first marriage (e.g., Axinn and Thornton, 1992; Blossfeld and Huinink, 1991; Michael and Tuma, 1985), while more recent studies considered both first marriage and first cohabitation (Cavanagh, 2011; Hoem and Kostova, 2008; Wiik, 2009). In many countries

that are advanced in the SDT, cohabitation has replaced marriage as the dominant manner of entering a union, which makes it important to analyse both union types (Kiernan, 2001). Moreover, it is possible that parental SES has a different impact on these two union types. Because cohabitation is often a more informal living arrangement with lower costs of entering and exiting than marriage, parents may be less inclined to influence the timing of entry into cohabitation than into marriage (Wiik, 2009). If so, one could expect a stronger effect of parental SES on entry into a first co-residential union if this union is a marriage than if it is a cohabitation. Thus, we also examine how parental status is related to entry into cohabitation versus marriage as first union, and how this relationship varies across countries.

Moreover, in understanding the link between parental SES and first-union timing it is also important to know the extent to which this link is mediated by young adults' own educational attainment and enrolment. Higher-SES parents tend to invest more in their children's educational career than lower-SES parents, and extended education is known to delay entry into a union (Blossfeld and Huinink, 1991; Liefbroer and Corijn, 1999).

2.2 Theoretical Background

Link between parental status and union formation

Several explanations have been proposed for why high parental SES delays the timing of first union. The most prominent explanation focuses on the role of parents in the process of educational attainment. Higher-SES parents are likely to have higher educational aspirations for their children than lower-SES parents and to emphasize more strongly the importance of the completion of education in order to avoid downward social mobility (Goldthorpe, 1996). As a result of their parents' aspirations, children from advantaged backgrounds are often socialized and motivated to invest more in their educational career than children from disadvantaged backgrounds, which often means discouraging romantic unions at young ages (Axinn and Thornton, 1992; Sassler, Addo, and Hartmann, 2010; South, 2001). Moreover, being enrolled as a student delays the timing of first union (Blossfeld and Huinink, 1991; Wiik, 2009).

However, multiple studies have found that an effect of parental status remains after controlling for an individual's own education (e.g., Cavanagh, 2011; Hoem and Kostova, 2008; Sweeney, 2002). Thus, in addition to individual education, other explanations have been

suggested. According to socialization theory, children's preferences are influenced by those of their parents. Since the choice of a partner is one of the most serious decisions young adults face, parents may wish to have a say in this process. Higher-SES parents expect their children to experience entry into a union and entry into a marriage at a later age than lower-SES parents (Keijer, Nagel, and Liefbroer, 2016), and may try to persuade their children to avoid early union formation because this can have long-lasting consequences for their further life course (Axinn and Thornton, 1992; Sassler et al., 2010; Wiik, 2009). Moreover, young adults from advantaged backgrounds may have higher standards regarding their future partner than those from disadvantaged backgrounds because they wish to retain the socio-economic status of their family (Oppenheimer, 1988; Wiik, 2009). If young adults enter a union before the completion of their education and the start of their career, they will choose a partner without knowing his or her socio-economic prospects and therefore, they may be advised to wait for a potentially better match (Oppenheimer, 1988; Wiik, 2009). Finally, young adults who grow up in well-off families may develop higher consumption aspirations and may wish to form a new household as wealthy as their household of origin. These high aspirations could cause them to delay union formation (e.g., Blossfeld and Huinink, 1991; Coppola, 2004; Easterlin, 1980) until their standard of living conforms to these aspirations. Thus, overall we expect *that young adults from advantaged backgrounds enter their first union later than those from less advantaged backgrounds (H1).* We will test this for the total and net effect of parental SES (controlled for an individual's own education).

Cohabitation vs marriage

Unmarried cohabitation is increasingly replacing marriage as most popular first union type throughout Europe, although its prevalence varies across countries (Kiernan, 2001). This popularity complicates the analysis of the link between parental SES and union formation, because cohabitation can serve both as an alternative to marriage, and as a temporary phase before marriage (Hiekel, Liefbroer, and Poortman, 2014). Previous research has shown differences between marital and cohabiting unions with regard to relationship quality, commitment, well-being, and union stability (e.g., Berrington and Diamond, 1999; Liefbroer and Corijn, 1999; Hansen, Moum and Shapiro, 2007; Soons and Kalmijn, 2009). Therefore, it

seems important to distinguish between marriage and cohabitation as alternative pathways into a first union.

Parental SES may be differently related to these two union types. Given that marriage is less easily reversible than cohabitation, parents have a higher stake in the timing of their offspring's marriage than in the timing of their cohabitation (Wiik, 2009). This may be particularly true if they perceive cohabitation to be temporary. Additionally, SDT theory maintains that the rise of cohabitation is a result of cultural trends towards self-fulfilment, individualization, and the rejection of tradition (Lesthaeghe, 2010), which could mean that cohabiters are less influenced by parental status than those marrying directly (Wiik, 2009). Moreover, cohabiters are more likely to be attracted to an alternative partner because they are generally less committed to their relationship than married people, and the costs of exiting are often lower than those of exiting marriage (Hansen et al., 2007). Thus although young adults from advantaged backgrounds may have higher aspirations with regard to their future partner, resulting in delayed entry into a union as argued above (Oppenheimer, 1988), they may be more inclined to postpone first marriage than cohabitation (Wiik, 2009). Given the high costs of marriage, parental financial support may also be more important when making the decision to marry than to cohabit. Based on these arguments, we expect *that the association between parental status and the timing of first union is stronger for direct marriage than unmarried cohabitation (H2).*

Cross-national variation explained by SDT

Most studies have examined the impact of parental status on first-union timing within a single country, such as the United States (e.g., Cavanagh, 2011; Michael and Tuma, 1985; South, 2001), Germany (Blossfeld and Huinink, 1991), Norway (Wiik, 2009), Sweden (Bernhardt and Hoem, 1985), France (Winkler-Dworak and Toulemon, 2007), Bulgaria (Hoem and Kostova, 2008), and the Netherlands (Mooyaart and Liefbroer, 2016)[1]. Only Mulder, Clark, and Wagner (2006) compared multiple countries: the United States, the Netherlands, and West Germany. They found that the father's education and income mattered less in the Netherlands and West Germany than in the United States.

[1] See Table A2.1 in Appendix for a detailed overview of the design and results of these studies.

SDT theory offers an explanation for cross-national variation in the effect of parental SES on union timing. According to SDT theory, there is a relationship between two societal trends; changes in attitudes and changes in demographic behaviour. Major demographic trends across Europe (e.g., decline in marriage rate, growth of cohabitation, and postponement of union formation) are the result of changes in values and attitudes (Lappegård, Klüsener, and Vignoli, 2014; Lesthaeghe, 2010; Lesthaeghe and van de Kaa, 1986). Important socializing institutions, such as the church and family, have lost much of their grip on members (Lesthaeghe, 2010; Sobotka, 2008). Processes of individualization and secularization mean that individuals have more freedom of choice and attach greater importance to self-fulfilment and autonomy (Lesthaeghe, 2010). Due to this focus on autonomy, young adults may have become less responsive to their parents' preferences and less dependent on their parents' resources. It can therefore be expected that the impact of parental status on their offspring's demographic behaviour is weaker in more secularized and individualized societies.

Because of differences in the onset and speed of diffusion of these demographic and value-related changes (Lappegård et al., 2014; Sobotka, 2008), countries vary in the extent to which SDT-related values and behaviours have been adopted at a given point in time. Earlier research suggests that Northern European countries are the most advanced countries in terms of SDT (e.g., high cohabitation and divorce rates and high level of individualistic values), followed by Western, Central and Eastern, and Southern Europe (Lesthaeghe, 2010; Sobotka, 2008). Inglehart (2006) confirms this pattern with regard to the level of individualization across countries. Therefore, we expect *a weaker link between parental SES and timing of union formation in countries where the SDT is more advanced (H3).*

2.3 Data & Methods

Data

We use data from Round 3 of the European Social Survey [ESS], conducted in 2006/2007 (ESS, 2006). Round 3 is the only round in which respondents are specifically asked about the timing of their first union. The ESS aims to be representative of residential populations aged 15 years and older, regardless of nationality, legal status, or citizenship. 25 countries participated in

Round 3 (initial N = 47,099). Our analytical sample consists of 20,495 men and 24,652 women. Of the respondents, 4% were dropped due to missing values of one or more variables.

Dependent variable

Respondents were asked *"Have you ever lived with a spouse or partner for three months or more?"* and if so *"In what year did you first live with a spouse or partner for three months or more?"* Based on this information, age of entry into a first co-residential union (either marriage or cohabitation) in years was calculated. Discrete-time event-history analysis was used to estimate the rate of entry into a first union, after the data had been transformed into a person-period file (Allison, 1984), with separate records for each year that respondents were at risk since age 15. We restrict our analysis to ages 15 to 35[2], because entry into a first union after age 35 is rare (Billari and Liefbroer, 2010). Respondents who did not enter their first union before age 35 or had not done so at the time of the interview were right-censored, either at age 35 or at the time of interview, depending on which occurred first. Overall, 20.1% of the sample (23.7% of men and 17.1% of women), had not (yet) entered their first union at age 35 or at the time of the interview. The analytical dataset consists of 211,307 person-year observations for women and 211,769 person-year observations for men.

To assess which type of union respondents had entered, we identified whether their first union was cohabitation or marriage. If the year of the first co-residential union was the same as the year of the first marriage, respondents were classified as having married directly, and if the year of the first co-residential union was earlier than the year of the first marriage, or if respondents did not marry, they were classified as having cohabited. Because we only have annual information, the percentage of people who married directly is slightly overestimated, because people may have first cohabited and then married later in the same year.

Independent variables

To measure *parental SES*, four indicators of the educational and occupational levels of parents were combined. Detailed country-specific information was available in the ESS on the highest

[2] We also checked whether censoring at 45 years changed the results, but they remained almost identical (see Appendix).

level of educational attainment for both parents. This information was converted into the International Standard Level of Education [ISLED], a recently developed comparative measure of educational level (Schröder and Ganzeboom, 2014). Its advantage over the International Standard Classification of Education [ISCED] is that the ISLED is more fine-grained, is sensitive to differences in educational systems between countries, and allows for continuous scaling. Likewise, father's and mother's occupation when the respondent was age 14 are measured in the International Standard Classification of Occupation [ISCO-88], and converted into the International Socio-Economic Index of occupational status [ISEI] (Ganzeboom and Treiman, 1996). A principal component analysis indicated that the four indicators of educational and occupational status of the parents can be summarized into a single index with high reliability (Cronbach's α = .85 for all countries pooled). The index was constructed after standardizing and averaging the four indicators. An average score was calculated jointly for both parents, because we are interested in the overall effect of parents' SES rather than to what extent fathers or mothers are more influential. This parental SES index was again standardized to a Z-metric (mean = 0, SD=1) within countries, so that the effects of this variable in all countries refer to a unit standard deviation.

Detailed country-specific information on the *highest level of education completed* was also available for respondents and converted into ISLED. We constructed a time-varying variable for respondents' level of education based on the number of years of schooling respondents could have completed (either full-time or part-time and including compulsory years of schooling) at a given age. From age 15 onwards, the ISLED score of respondents increased linearly with age until reaching its maximum value at the age at which respondents completed their highest educational level. This time-varying measure of education was also expressed in a Z-standardized metric within countries.

To examine how being in education affects first-union timing, a time-varying binary variable *educational enrolment* was constructed, indicating whether respondents were enrolled in the educational system (1) or not (0) at a given age. This variable was also based on the numbers of years of schooling respondents had completed.

The time-varying variable *age* was constructed as the number of years since age 15. The *birth year* of respondents was used to construct a continuous variable (ranging between 1905 and 1992). Descriptive information on all independent variables can be found in Table 2.1.

Country-level indicators

We used three country-level indicators to measure the relative position of European countries in SDT development. All indicators were aggregated from ESS Round 3 data. The first indicator is an attitudinal one and uses information on the age-norm of leaving the parental home in order to reflect attitudes within a country regarding how independent young adults are from their parents. Respondents were asked *"After what age are people generally too old to still be living with their parents?";* we used the percentage of people in a country who said that the age deadline for leaving the parental home should be equal to or greater than 30 years[3] (Aassve, Arpino, and Billari, 2013) as an indicator of how independent young adults are in a given country. Another SDT indicator focuses on the rise of cohabitation, thus reflecting a behavioural rather than an attitudinal dimension. For each country we calculated the percentage of respondents who cohabited as their first union. The higher this percentage, the more individualized the population in a country were expected to be. The third country-level indicator focuses on the process of secularization using the question *"How religious are you on a scale from 0 (not at all religious) – 10 (very religious)?"*. We calculated the overall mean for each country. Means of all three SDT indicators are listed in Table 2.1[4].

Analytical strategy

Discrete-time logistic regression models were estimated for each country separately to obtain the country-specific estimate and standard error (SE) of the total and net effect of parental SES on the timing of young adults' first co-residential union. Multinomial logistic regressions were used to obtain country-specific estimates and SEs of the competing-risk effects of parental status on cohabitation or marriage as first union. In all these models, we included age and birth year as controls. For age the quadratic and cubic terms, and for birth year the quadratic term were also included to account for well-known nonlinearities in the relationship between age, birth year, and entry into first union. Next, respondents' educational level and enrolment were included in the models of first union and in the competing-risk models of cohabitation and marriage, to assess the extent to which the impact of parental SES was

[3] A cut-off point is used because this variable also had an answer category 'never too old' which was an often-used answer category in some countries. The cut-off point is 30 years because this was the median age.

[4] As a robustness check, we analysed the association between the two SDT indexes of Sobotka (2008) and the effect of parental SES on first-union timing for women. The results of these indexes are in line with the results of our country-level indicators (see Appendix).

mediated by respondents' education. All these models were separately estimated for men and women, given that women generally enter their first union at an earlier age than men (Coppola, 2004; Uecker and Stokes, 2008).[5]

A two-step meta-analytic approach suggested by Bryan and Jenkins (2016) was used to analyse (A) whether there exists a link between parental SES and the timing of first union, (B) whether there is cross-national variation in the link between parental SES and first-union timing and (C) whether this variation can be explained by our country-level indicators. We used this approach rather than a multilevel analysis because of the small number of countries (N < 30). The SE of country-level effects is underestimated if the number of countries is small, resulting in too many incorrect rejections of a true null hypothesis (Bryan and Jenkins, 2016). The two-step approach offers a more conservative test of our hypotheses.

In the first step, a meta-analysis is performed, in which all country-specific estimates and SEs of the logistic models are included, to test whether there is a link between parental SES and union formation and whether these effects of parental SES vary across countries. The meta-analysis provides a measure for between-country heterogeneity (I^2), which is the percentage of observed total variation across countries that is due to real heterogeneity rather than chance, lying between 0% and 100%. I^2 is calculated as 100%*(Q-df)/Q, where Q is Cochran's heterogeneity statistic and df is the degrees of freedom (Harris et al., 2008). If I^2 is above 50%, substantial heterogeneity across countries exists (Higgins, Thompson, Deeks, and Altman, 2003). Meta-analyses are performed for the effect of parental SES on the timing of first union, and for cohabitation and marriage separately. Both the total and net effect of parental status (controlling for respondents' education) are examined. To present the country-level effects, we grouped the 25 countries geographically into Northern, Western, Southern, and Central and Eastern Europe.

Second, if significant heterogeneity between countries was observed, a meta-regression was performed in which these country-specific effects of parental SES are regressed on the country-level indicators (Harbord and Higgins, 2008). All models were fitted in STATA 14, using the **metan** command for meta-analyses and the **metareg** command for meta-regressions. The sample size is the number of countries. Countries with more

[5] No weights are used in this study. Analyses with weights show the same results (see Appendix).

respondents have more influence on the relationship, because countries are inversely weighted to the precision of their effect estimate as indicated by their SE.

2.4 Results

Descriptive results

Table 2.1 shows the median age of entering a first union for each country, separately for men and women. Large differences are observed. For example, the median age of entering a first union is 25.0 years for women in Ireland, while it is 20.7 years for women in Bulgaria. This difference in median age of more than four years is also observed for men; the highest median age is again for Ireland (27.5 years), while the median age for men in Russia is 23.3 years. Unsurprisingly, women enter their first union approximately two years earlier than men in most countries.

Table 2.1 also shows large differences between countries with regard to parental SES indicators. Mean educational and occupational levels of parents are lowest in Portugal, and highest in Denmark and Norway. In all countries the average educational level of parents is lower than respondents' educational level.

Finally, Table 2.1 shows differences between countries with regard to the country-level SDT indicators. Around 80% of respondents in Southern and some Eastern European countries believe that people are not too old to continue to live with their parents when they are 30 years or older, but the equivalent figure is less than 50% in Northern Europe. Moreover, the percentage of people cohabiting as their first union is over 50% in most Northern and Western European countries, while in Southern and Eastern Europe the figure is much lower. The average level of religiosity varies similarly between countries, from 3.58 for Sweden to 7.02 for Cyprus, on a scale from 0-10. The three SDT indicators are correlated between 0.44 and 0.69 at the country level.

Table 2.1. Descriptive statistics for the dependent and main independent variables at the individual and country level.

	Median age first union for women	Median age first union for men	Average parental ISLED (0-100)	Average parental ISEI (16-90)	Average ISLED respondent (0-100)	Proportion of adults who approve of leaving home >30 yr	Proportion of adults who cohabit as first union	Average level of religiosity (0-10)
North								
Denmark	21.3	23.7	46.27	39.32	56.89	0.27	0.66	4.29
Finland	21.9	23.8	35.09	36.96	51.63	0.47	0.55	5.30
Norway	22.1	23.8	48.50	41.43	56.19	0.42	0.58	3.81
Sweden	21.7	23.8	38.29	40.09	51.74	0.45	0.72	3.55
West								
Austria	22.1	24.0	33.75	41.49	51.69	0.73	0.55	5.10
Belgium	22.4	24.2	39.87	42.27	50.34	0.67	0.31	4.92
France	21.7	24.3	35.24	39.82	50.24	0.53	0.50	3.70
Germany	22.3	24.6	43.43	39.17	52.54	0.55	0.46	3.86
Ireland	25.0	27.5	34.27	37.47	55.45	0.75	0.33	5.41
Netherlands	22.8	25.2	36.18	41.80	53.85	0.56	0.44	4.89
Switzerland	23.2	25.3	44.18	41.80	46.38	0.53	0.50	5.50
United Kingdom	22.3	24.3	42.20	41.64	54.56	0.68	0.38	4.08
East								
Bulgaria	20.7	23.8	39.06	34.04	45.15	0.82	0.14	4.31
Estonia	22.3	23.6	43.95	38.03	50.21	0.69	0.34	3.58
Hungary	20.9	24.1	35.28	34.07	46.79	0.84	0.21	4.41
Latvia	22.3	23.4	48.43	39.48	47.13	0.82	0.36	3.80
Poland	22.2	25.1	33.46	33.19	47.50	0.75	0.14	6.48
Romania	21.2	24.3	30.29	33.01	44.00	0.84	0.13	6.79
Russia	21.8	23.3	45.07	40.50	49.57	0.49	0.16	4.20
Slovakia	21.7	24.4	45.21	36.96	49.59	0.82	0.16	5.90
Slovenia	22.6	25.3	34.34	37.99	47.52	0.80	0.34	4.69
Ukraine	21.2	23.4	41.40	35.92	47.07	0.50	0.14	5.30
South								
Cyprus	22.2	24.8	29.20	33.46	46.32	0.87	0.26	7.02
Portugal	22.5	24.8	12.71	29.55	23.85	0.88	0.12	5.79
Spain	24.7	26.8	26.43	35.12	43.56	0.79	0.22	4.58

Total effect of parental SES

First union

Figures 2.1a and 2.1b show the results of a meta-analysis in which for each country the total effect of parental SES on the timing of first union is shown for women and men. The dotted line represents the overall effect of parental SES on first-union timing for all European countries. Figure 2.1a shows an overall negative effect of parental SES on the timing of first union for women (b = -.171, p<.01). Thus, the higher the SES of parents, the later women enter their first co-residential union. Figure 2.1a shows that for women a delaying effect of parental SES is observed in all countries, but substantial between-country heterogeneity is also found (I^2 = 62.8%, p<.01). Multiple countries clearly deviate from the overall mean. Moreover, we see a certain order with regard to the regions in the effect of parental SES, with the weakest effect of parental SES for Northern European countries, followed by Western, Southern, and Eastern European countries.

Figure 2.1b shows that the results for men are somewhat different. Men also experience an overall negative effect of parental SES on the timing of first union (b = -.055, p<.01), but for about half of the countries the effect of parental SES on first-union timing is insignificant, and for Poland the effect is even positive, which implies that the higher parental SES, the earlier men enter their first union. However, we see the same pattern among European regions as for women, and the between-country heterogeneity is even higher for men than for women (I^2 = 70.0%, p<.01).

Figure 2.1a. TOTAL effect of parental SES on the timing of first union for WOMEN in 25 European countries. Meta-analysis of estimates from discrete-time logistic models.

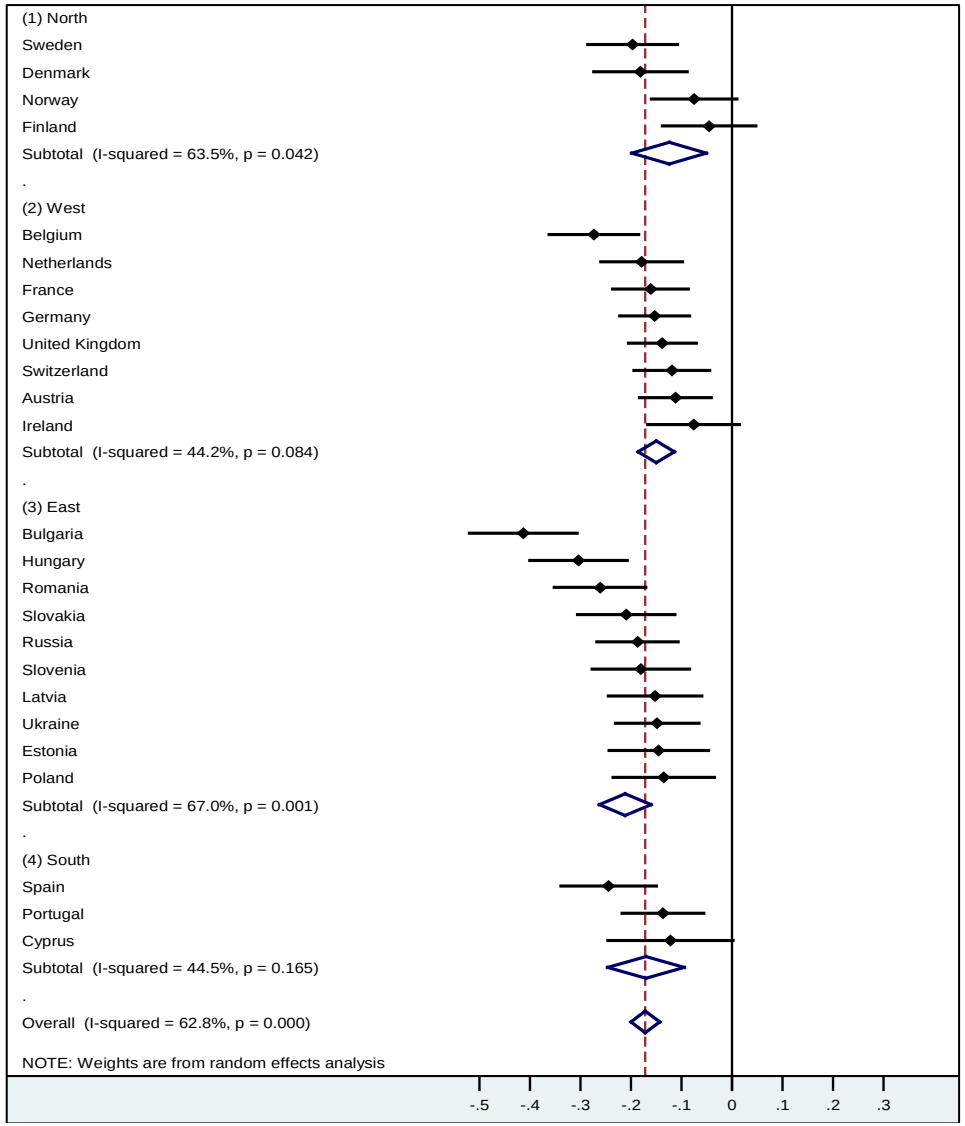
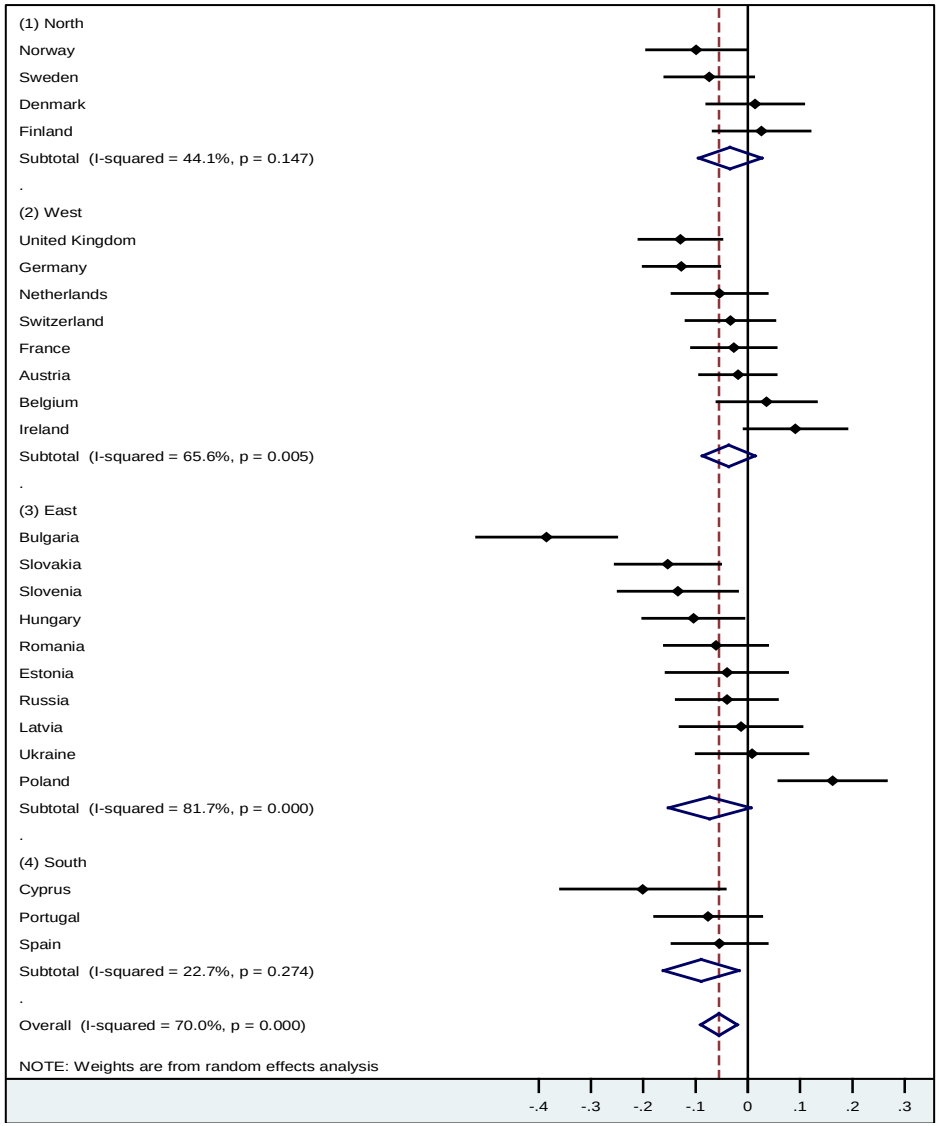
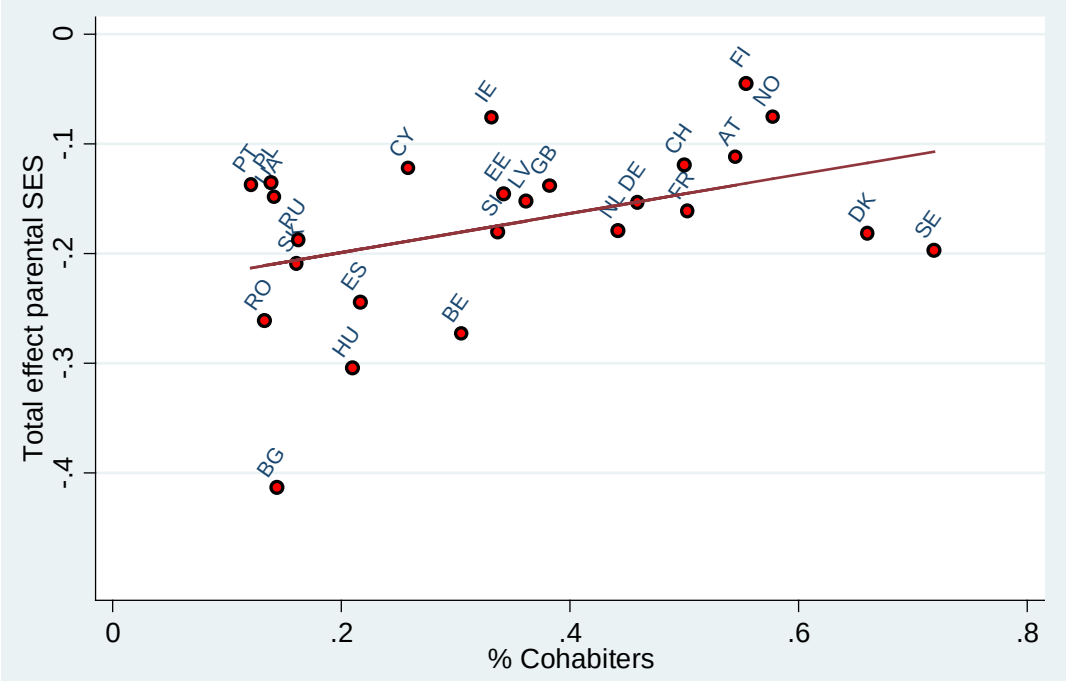


Figure 2.1b. TOTAL effect of parental SES on the timing of first union for MEN in 25 European countries. Meta-analysis of estimates from discrete-time logistic models.



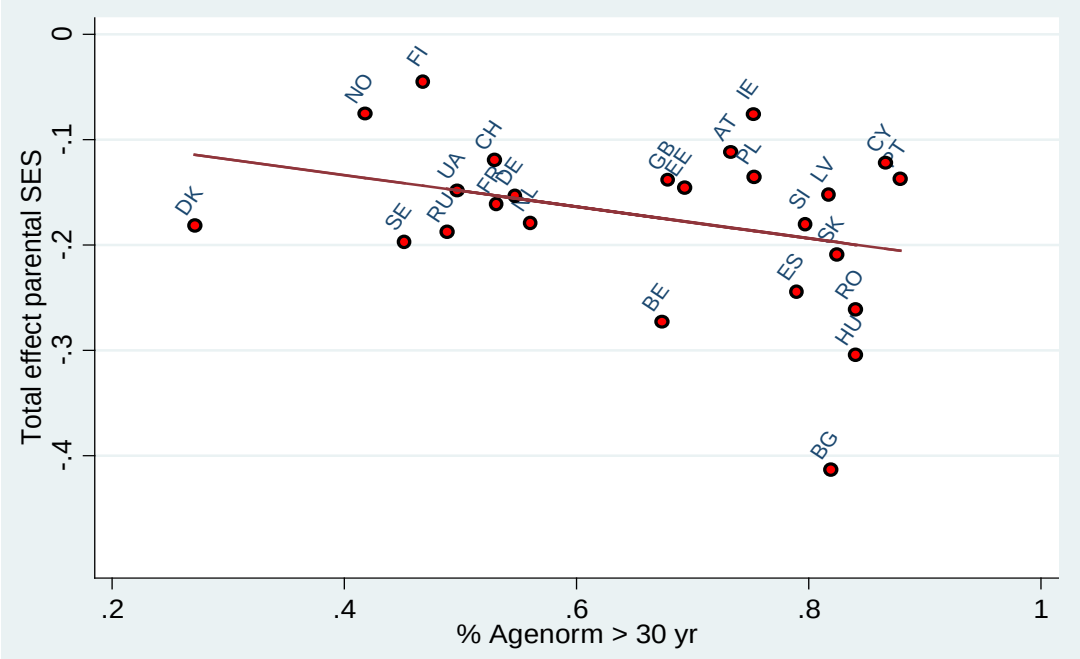
Our next step was to analyse whether this cross-national variation can be explained by the country-level SDT-indicators. To do this, meta-regression was applied, and the results for two of the SDT indicators are graphically represented in Figure 2.2a and 2.2b for women (a table with all the regression results for men and women can be found in the Appendix). Figure 2.2a indicates that the higher the percentage of people who cohabit as their first union in a country, the smaller the effect of parental SES on first-union timing for women (b = .178, p = .018[6]). If we remove two influential cases with regard to cohabitation rates from the analysis (Denmark and Sweden), the association becomes even stronger (b = .279, p = .003). The effect of another SDT indicator (age-norm of leaving home) is also in the expected direction, but is only marginally significant (see Figure 2.2b, b = -.150, p = .054). However, if we exclude Denmark as an influential case from the analysis, the association between the age-norm of leaving home and the impact of parental SES becomes significant (b = -.198, p = .031), so the higher the age-norm in a country, the stronger the impact of parental SES for women. By contrast, the third SDT indicator, the level of religiosity, does not explain the cross-national variation in the total effect of parental SES on first-union timing.

Figure 2.2a. Association between the TOTAL effect of parental SES on the timing of first union for WOMEN and the percentage of men and women in a country who cohabit as their first union (Based on results presented in Table A2).



[6] P-values of all meta-regression coefficients are one-tailed.

Figure 2.2b. Association between the TOTAL effect of parental SES on the timing of first union for WOMEN and the percentage of people in a country saying that it is acceptable to continue to live in the parental home at age 30 or older (Based on results presented in Table A2).



Cohabitation vs marriage as first union

Figures 2.3a and 2.3b show the results of the meta-analyses for the two union types. To save space, we present only the results for women (results for men can be found in the Appendix); although the effects are smaller for men, the patterns are the same as for women. Figure 2.3a and 2.3b show that women from advantaged backgrounds delay both cohabitation and marriage compared with women from disadvantaged backgrounds (overall mean for cohabitation b = -.069, p<.01, and for marriage b = -.232, p<.01). However, an additional test, in which cohabitation as first union is the reference category, shows that the delaying effect of parental SES is significantly stronger on marriage than on cohabitation (p<.01). When looking at country-specific effects, Figure 2.3a on cohabitation shows that the cross-national variation is rather small, but significant for women (I^2 = 44.3%, p=.01), with only Sweden and Bulgaria clearly deviating from the mean. Still, the largest effects of parental SES on cohabitation are found in Northern and Eastern European countries. Figure 2.3b on marriage as first-union type shows stronger cross-national variation (I^2 = 68.6%, p<.01), with the weakest effect of parental SES found in Northern Europe and the largest in Western and Eastern Europe.

In the next step, we examined whether this cross-national variation can be explained by the three country-level SDT-indicators, but the results indicate that none of the meta-regression coefficients were significant either for men or for women (see Table A2.2 in the Appendix).

Net effect of parental SES after including educational attainment

An important mediator in the link between parental SES and the timing of first union is an individual's own education. Figure 2.4 shows that for women, a negative net effect of parental SES remains after controlling for an individual's own education (b = -.071, p<.01). Thus, for women, only part of the effect of parental SES on first-union timing is mediated by respondents' educational level and enrolment. Figure 2.4 also shows that for women, between-country heterogeneity in the net effect of parental SES on the timing of first union almost disappears after controlling for individuals' own education and enrolment (I2 = 12.4%, ns). Including individuals' own education as a mediator in the model explains the cross-national variation in the link between parental SES and first-union timing.

The meta-analyses for the two union types separately show that a net effect of parental SES remains only for women who marry directly; in general, women from high-status families who marry directly delay their union compared with those from lower-status families (b = -.109, p<.01, Figure A2.4b in Appendix). Both models also show that controlling for respondents' education strongly reduces the between-country heterogeneity in the impact of parental SES (see Figure A2.4a and A2.4b).

In contrast to women, for men the effect of parental SES becomes insignificant after controlling for the individual's own education (Figure A2.5a). Moreover, after including individual's own education, the between-country heterogeneity reduces for first union overall, as well as for cohabitation and marriage separately (see Figures A2.5a, A2.5b and A2.5c). While the between-country heterogeneity in the net effect of parental SES is still above 50% for men for first union and cohabitation as first union (see Figure A2.5a and A2.5b), the results of the meta-regressions show that this cross-national variation in the net effect of parental SES cannot be explained by the SDT indicators (see Table A2.2).

Figure 2.3a. TOTAL effect of parental SES on the timing of COHABITATION as first union for WOMEN in 25 European countries. Meta-analysis of estimates from discrete-time logistic models.

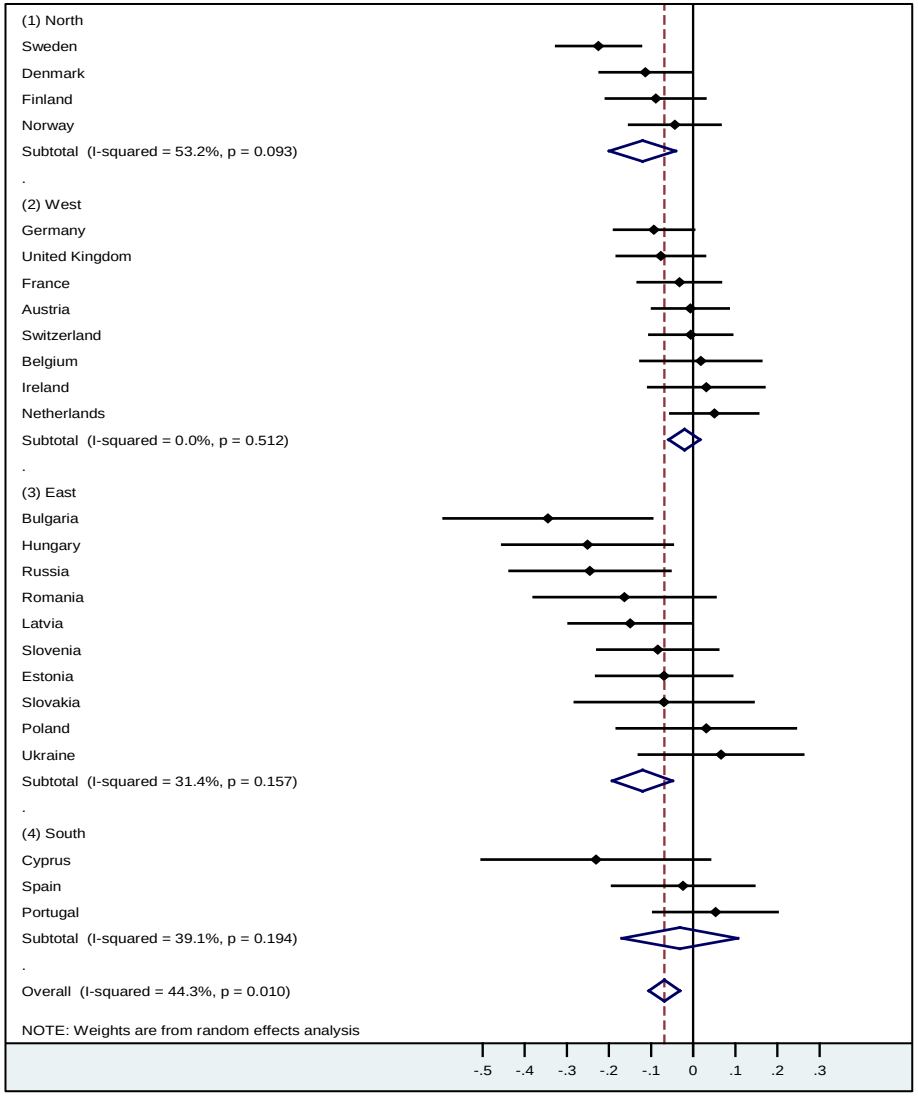


Figure 2.3b. TOTAL effect of parental SES on the timing of MARRIAGE as first union for WOMEN in 25 European countries. Meta-analysis of estimates from discrete-time logistic models.

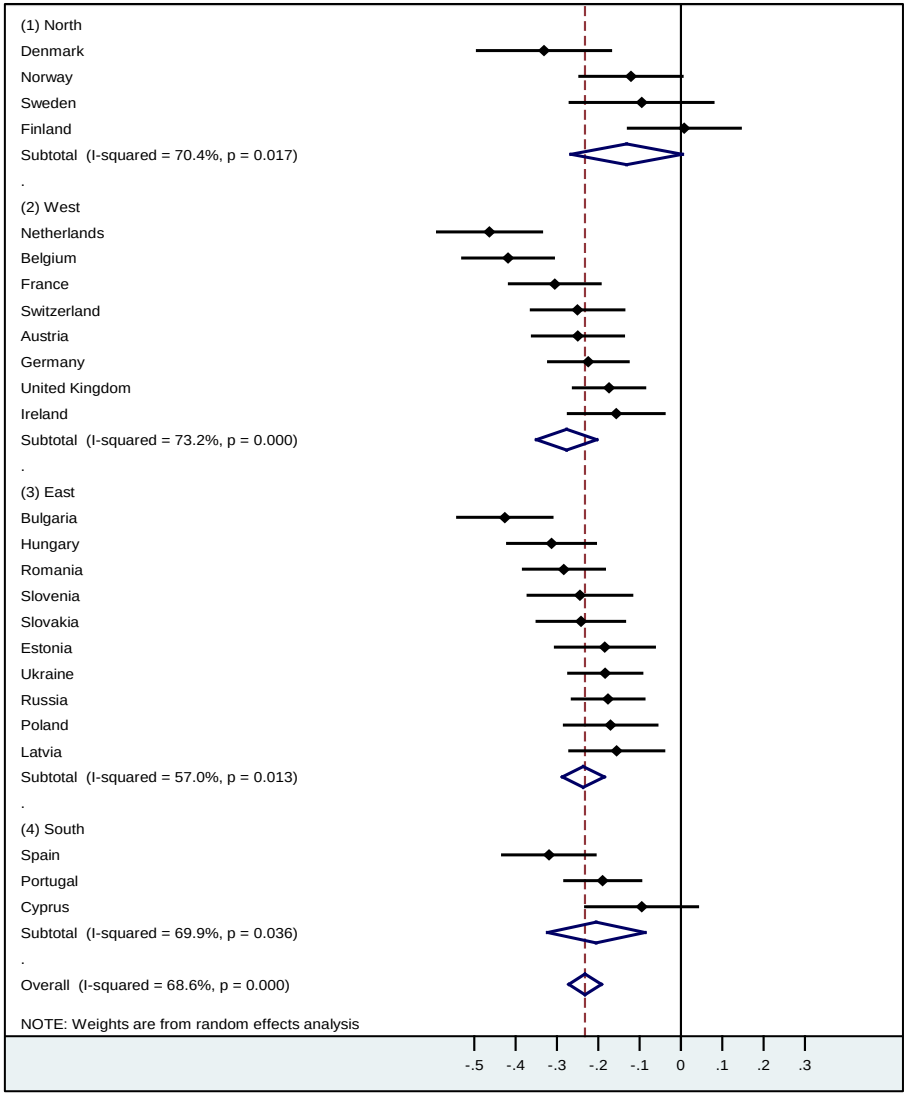
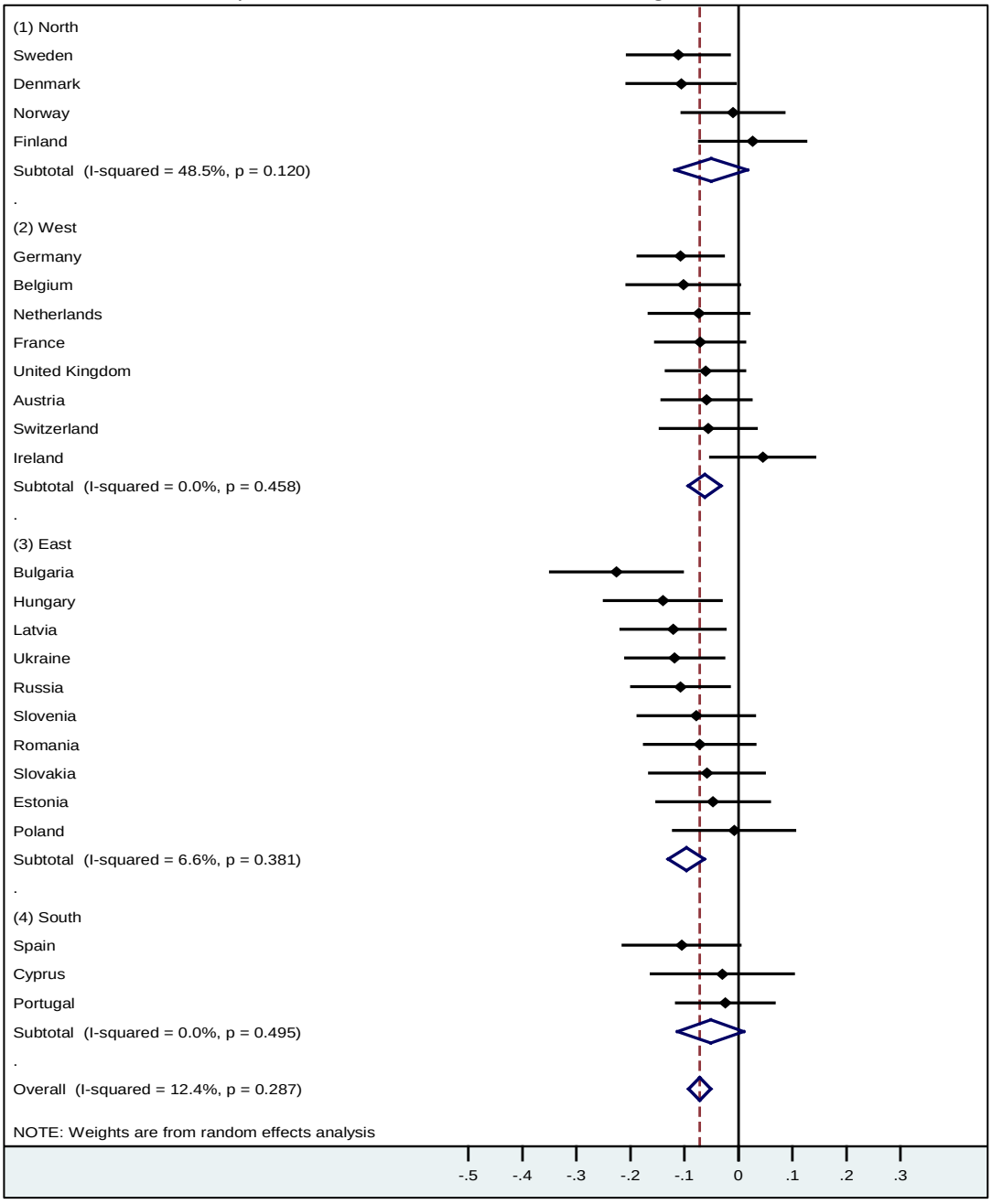


Figure 2.4. NET effect of parental SES on the timing of first union for WOMEN in 25 European countries. Meta-analysis of estimates from discrete-time logistic models.



2.5 Conclusions & Discussion

In this study we examined the impact of parental SES on the timing of first co-residential unions across Europe. Previous country-specific studies have found a link between parental SES and the timing of union formation, but very little is known about cross-national variation with regard to this link, and the causes of any variation that exists. We applied meta-analysis and meta-regression techniques to ESS data to test three hypotheses related to these issues.

Our first hypothesis was that – across Europe – women and men from higher-SES families postpone entry into a first union compared with those from lower-status families. Our analysis confirms this hypothesis. For both women and men, higher parental SES is linked to a later entry into a first union. However, results also show that substantial between-country heterogeneity exists in the total impact of parental SES on first-union formation.

A crucial mediator in the link between parental status and first-union timing is an individual's own education, and this study finds support for the importance of this factor. However, even after controlling for respondents' educational level and enrolment, the analysis still showed a significant, though somewhat smaller, delaying effect of parental SES for

women. Interestingly, the net effect of parental SES was homogeneous, implying that this effect is more or less equally strong across the 25 European countries. Potential mechanisms for explaining this net effect are differences between children from higher and lower-SES backgrounds in their partner preferences (Oppenheimer, 1988), or in their family formation attitudes (Wiik, 2009). However, using this data we were not able to test these mechanisms, and these therefore constitute an important area of enquiry for future research. For men, no significant net effect of parental SES was found. An explanation for this gender difference could be that women are more family-oriented than men and therefore more susceptible to family influences (Wiik, 2009).

The second hypothesis of this study was that the impact of parental SES on the timing of a first union is stronger for marriage than for cohabitation. Results confirm that young adults from high-status families mainly delay marriage and that they delay cohabitation to a much lesser extent. This is in line with the idea that marriage is a stronger commitment than cohabitation, implying that parents wish to be more involved in the decision-process with regard to getting married. Between-country heterogeneity in the impact of parental SES is lower for cohabitation than for marriage. Moreover, the delaying effects of parental SES on cohabitation disappear after controlling for individual education, whereas these effects on marriage are somewhat weaker, but remain significant.

Since we observed cross-national variation in the link between parental SES and union formation, we tested our third hypothesis that the strength of the link between parental status and first-union timing is weaker in countries where the SDT is more advanced. Because we only found evidence of between-country heterogeneity in the total effect of parental SES,

we restricted our test of this hypothesis to these total effects. We used three country-level SDT indicators and found support for two of them. Both our behavioural and our attitudinal SDT indicators showed the same expected relationship: the higher the percentage of people in a country who cohabit as their first union (behavioural indicator) and the weaker the age-norm of leaving home (attitudinal indicator), the weaker the total impact of parental SES on the timing of first union for women. Thus we conclude that in countries that are more advanced in the SDT, parental SES is less strongly linked to the union formation behaviour of young adults, which supports SDT theory (Lesthaeghe, 2010; Sobotka, 2008). The level of religiosity as SDT-indicator did not explain any cross-national variation in the link between parental SES and union formation. One reason for this could be that it is not the level of religiosity of a country that matters, but whether or not institutional religion is still influential in defining its social norms and values (Dobbelaere, 1995).

Key findings from this study are that cultural differences across countries explain the cross-national variation in the link between parental SES and union formation. Moreover, most of the delaying effect of parental SES is related to the postponement of first union via marriage. The timing of entry into cohabitation seems much less socially stratified. In addition, this study shows that parental SES influences the timing of union formation even after controlling for the intergenerational transmission of educational attainment. Unfortunately, other possible mediators, such as individuals' first employment or parental divorce, were not available in the data, but for future comparative research it would be interesting to analyse these mediators given that previous studies have shown their importance (South, 2001; Wiik, 2009).

An individual's own education is not only an important mediator in the link between parental SES and first-union timing, but country differences in the strength of parents' influence on their offspring's union timing decisions effectively disappear once we control for this mediator. SDT theory already suggests that demographic changes are driven not only by cultural (values), but also by structural factors (such as the rise of higher education) (Lappegård et al., 2014). In parallel to the attitudinal and behavioural changes that constitute the SDT, there has been a mass expansion of education worldwide, so it might be expected that the level of educational expansion is related to the SDT development of a given country. More specifically, Lesthaeghe (2010) highlighted change in the educational composition of

western populations as a major contributor to the SDT process, but to date this has not been analysed.

In this study we applied a comparative perspective by linking the average effect of parental SES to the average effect of various country-level indicators for several birth cohorts. However, in addition to this cross-national dimension, there could also be a temporal dimension in the effect of parental SES. We tried to include the temporal dimension in this study, but unfortunately this was not possible because there are no contextual variables over time for all 25 countries. Moreover, we analysed whether the impact of parental SES on union formation changed over time and found that this was not the case. Although the impact of parental status was not found to show much variation within countries across historical time, an important next step would still be to examine how the link between parental SES and union formation varies across both space and time. A major impediment for such an approach is that retrospective information on cultural country-level indicators would be needed, but obtaining such time-varying macro-level information will be difficult.

Chapter 3

Parental socio-economic status and the timing of first marriage: What is the role of unmarried cohabitation? Results from a cross-national comparison*

* This chapter is currently under review at an international scientific journal. This chapter is co-authored by A.C. Liefbroer and H.B.G. Ganzeboom. Brons wrote the main part of the manuscript and conducted the analyses. Liefbroer and Ganzeboom substantially contributed to the manuscript. The authors jointly developed the idea and design of the study. Earlier versions of this chapter were presented at the ECSR (Tallinn, 2015/ Milan, 2017), VID Conference: Education and reproduction in low-fertility settings (Vienna, 2015), Dutch Demography Day (Utrecht, 2016), Day of Sociology (Brussel, 2017), and GGP User Conference (Berlin, 2017).

Abstract

Previous research has shown that individuals from high-status families enter marriage later than those from low-status families. However, in many Western societies, it has become common to cohabit prior to marriage. Does this change the link between parental SES and marriage timing? This study examines to what extent the impact of parental SES on the timing of first marriage weakens after young adults start to cohabit. It also examines cross-national variation in the link between parental SES and marriage timing before and after young adults cohabit and whether this variation depends on countries' position in the cohabitation transition. We apply discrete-time hazard models and meta-analytical tools using data from 18 European and two North-American countries. To examine whether the dominant meaning of cohabitation in a country explains country differences, we construct a four-stage cohabitation typology. In most countries, higher parental SES results in later entry into marriage. The impact of parental SES on marriage timing significantly weakens after young adults start to cohabit. Significant cross-national variation is found in the strength of the link between parental SES and marriage timing. However, this variation cannot be explained by the cohabitation stage countries are in. First, this study provides fresh evidence of the influence of parental SES on family formation in Western countries. Second, it shows the importance of a life-course perspective, as parental SES matters less after young adults start to cohabit. Third, it presents a theory-based and empirically-tested typology of stages in the cohabitation transition.

3.1 Introduction

Previous research has conclusively shown that young adults from higher socio-economic backgrounds enter their first marriage later than those growing up in lower status families (e.g. Axinn & Thornton, 1992; South, 2001). The intergenerational transmission of education is generally seen as an important mechanism to account for this pattern, but previous studies also indicate that even after controlling for individuals' own educational level a substantive impact of parental socio-economic status (SES) on marriage timing remains (e.g. Brons, Liefbroer, & Ganzeboom, 2017; Mooyaart & Liefbroer, 2016; South, 2001). Thus, next to young adults' achieved status, also their ascribed status impacts their marriage formation process.

From the 1970s onwards, in many European and North-American societies it has become increasingly common to cohabit with a partner before one marries, and a growing number of people do not even marry at all (Thornton, Axinn, & Xie, 2007; Sobotka & Toulemon, 2008). This increasing popularity of unmarried cohabitation, predicted by the Second Demographic Transition (SDT) theory (Lesthaeghe, 2010; Van de Kaa, 2001), has made the marriage process more complex. On both sides of the Atlantic, cohabitation has become a popular step towards marriage, or even an acceptable alternative to marriage (Heuveline & Timberlake, 2004). Due to this 'additional' step in the marriage formation process, we can expect that the impact of parental SES on the timing of marriage might be shifting. After young adults start to cohabit, the influence of parents on their children's marriage timing might become weaker. Young adults will become less dependent on their parents' guidance and parental resources after they decide to live together with their partner. However, given the high costs of marriage, parental financial support may still be important for the decision to marry, even for cohabiting young adults. Moreover, since marriage is less easily reversible and more consequential than cohabitation, it could be that parents still want to be involved in their children's marriage timing (Wiik, 2009). Recently, Brons, Liefbroer, and Ganzeboom (2017) indeed showed that the impact of parental SES on first union formation is stronger for marriage than for cohabitation. However, like most existing studies on the link between parental SES and marriage timing, Brons et al. (2017) did not analyze whether parental SES still affects the timing of marriage after young adults have entered a cohabiting relationship.

Therefore, the first question of this study is *to what extent the effect of parental socio-economic status on the timing of first marriage weakens after young adults start to cohabit?*

Most studies on the link between parental SES and the timing of first marriage have been conducted in single countries (e.g. Axinn & Thornton, 1992; South, 2001). There are, however, reasons to expect that country variation exists in the degree to which parental SES influences marriage timing both when young adults do not live together and when they live together with their partner. Brons et al. (2017) have found substantive cross-national variation in the link between parental SES and the timing of entry into a first co-residential union, which they explain against the background of the SDT. The current study examines cross-national variation in the link between parental SES and the timing of marriage after young adults have entered a cohabiting relationship, against the background of diversity in the prevalence and meaning of cohabitation across countries. Several scholars have argued that the spread of cohabitation in European and North-American societies can be viewed as a diffusion process with different countries being at different stages of this 'cohabitation transition' (Hiekel, Liefbroer, & Poortman, 2014; Kiernan, 2001). Countries where cohabitation has a lower status than marriage and is often seen as *a prelude to marriage* are at the start of the diffusion process. Later on in the diffusion process, when cohabitation is more accepted and adopted by people from all social strata, cohabitation is mainly seen as *a trial marriage*. The majority of people still marry, but they tend to postpone it (Heuveline & Timberlake, 2004; Hiekel, 2014). Some Western European countries in which cohabitation is seen as an *alternative to marriage* are already a step further advanced in the diffusion process. The last stage of the cohabitation transition is when cohabitation is really seen as a long-lasting alternative to marriage (cohabitation as *the norm*), as in some Northern European countries seems to be the case (Heuveline & Timberlake, 2004; Hiekel, 2014; Kiernan, 2001). We expect that the strength of the link between parental status and marriage timing after young adults start to cohabit depends on the dominant meaning of cohabitation within a country. Therefore, we examine whether the impact of parental SES on marriage timing after young adults start to cohabit weakens further in countries that are in more advanced stages of this cohabitation transition. To our knowledge, there is no study that analyzed cross-national variability in the impact of parental SES on marriage timing before and after young adults start to cohabit. Therefore, the second question of this study is *to what extent cross-national variation exists in the link between parental SES and the timing of marriage before*

and after young adults start to cohabit and whether this variation is related to a countries' position in the cohabitation transition?

We use data of 18 European and two North-American countries from the first wave of the multi-national Generation and Gender Programme and the UK-US Harmonized Histories to answer these research questions. In this study, we construct a four-stage cohabitation typology to examine whether the dominant meaning of cohabitation in a country can explain the cross-national variation in the link between parental SES and marriage timing.

3.2 Theoretical Background

Parental SES and marriage formation

The well-known and persistent strong positive association between parental SES and offspring's educational achievements (Shavit & Blossfeld, 1993) is an important explanation for the link between parental SES and the timing of marriage of young adults. Compared to lower status parents, parents with high SES are likely to have and transmit higher educational aspirations to their children. These children will attend school longer than children from lower status families, and focus more on their educational and occupational career, thereby postponing the transition into marriage (Blossfeld & Huinink, 1991; South, 2001; Thornton et al., 2007; Wiik, 2009).

Next to this intergenerational transmission of education, there are several other arguments about why higher parental SES leads to postponement of first marriage. First, young adults from advantaged backgrounds may be socialized differently than young adults from disadvantaged backgrounds. Parents with high SES often have more liberal attitudes and values with regard to cohabitation before marriage and the ideal age of marriage than lower SES parents (Thornton et al., 2007; Wiik, 2009). Second, high-SES parents might stress the importance of finding a suitable marriage partner, which results in a longer searching process and postponement of marriage (Oppenheimer, 1988). Third, young adults from high-SES families might also want to emulate the living standards in their parental home and thus postpone steps in the family formation process until they can afford to live up to these standards (Axinn & Thornton, 1992; Easterlin, 1980). Young adults from advantaged backgrounds often have higher consumption aspirations than their less-fortunate peers, since they form their consumption aspirations in their wealthy parental home (Axinn & Thornton,

1992; Blossfeld & Huinink, 1991; Easterlin, 1980). These high-consumption aspirations often result in more investment in consumer goods and leisure, and this may go at the expense of saving money for a wedding. At the same time, the financial resources of high-SES parents could also be used to speed up their offspring's marriage, since parents could assist their children financially with the big wedding (Axinn & Thornton, 1992; Mulder, Clark, & Wagner, 2006). Finally, young adults from high-status families may, eventually, attach more value to marriage as a formal contract between two partners than young adults from low-status families.

Accounting for cohabitation

According to the SDT theory, improved living standards, weakened normative regulations, and increased female autonomy have resulted in an increasing demand for self-development, autonomy, and individualism in Western societies (Lesthaeghe, 2010; Sobotka, 2008; Van de Kaa, 2001). Amongst other demographic changes (e.g. below-replacement fertility and rising divorce rates), these value changes manifested themselves in an increased acceptance of cohabitation as an additional step before marriage or even as an alternative to marriage (Hiekel, 2014). From the 1970s onwards, more people started to cohabit before they married and, especially in some Western and Northern European countries, cohabitation has become more and more seen as an acceptable alternative to marriage (Thornton et al., 2007; Heuveline & Timberlake, 2004; Kiernan, 2001; Sobotka & Toulemon, 2008). Hiekel (2014) shows for example that in Norway and France, unmarried cohabitation has become the type of first union for around 90 percent of the respondents born after 1971. Also in many Eastern European countries (e.g. Bulgaria, Hungary, and Russia), more than half of all first unions of this birth cohort started as unmarried cohabitation. Marriage, which was once part of the natural transition into adulthood and parenthood, has lost some of its importance in structuring young adults' lives and has been replaced by cohabitation, at least as the initial first stage of family formation (Bumpass, Sweet, & Cherlin, 1991; Cherlin, 2004). In many countries, cohabitation has also developed into a legally accepted alternative to marriage (Perelli-Harris & Gassen, 2012). Cohabitation has acquired more legal recognition, and, in some countries, cohabiters have acquired virtually the same rights as married couples. The increasing popularity of cohabitation has made the marriage formation process more complex. Due to this additional step in the marriage formation process, it becomes important

to also include the cohabitation history of young adults into the analysis of determinants of marriage formation.

The rising popularity of cohabitation may have changed the impact of parental socio-economic background on the marriage process. In particular, it can be expected that the impact of parental SES on marriage timing becomes weaker after young adults cohabit. On their path to adulthood, young adults' own life-course events and preferences become more important relative to the features of family background (South, 2001). Life events, such as obtaining a job, leaving the parental home, and establishing independent living arrangements, often change the relationship between parents and their offspring. When young adults live together with their partner and form their own household, they become usually less dependent on parental resources and the relative importance of their parents' preferences compared to those of their partner, resulting in a weaker (or even no) impact of parental SES on marriage timing (Axinn & Thornton, 1992; Mooyaart & Liefbroer, 2016; South, 2001). Moreover, with the rising popularity of cohabitation it may become more important for parents to affect the timing of entry into cohabitation, as they do not know whether their child will eventually get married. Thus, overall, *we expect that young adults from high-SES families enter their first marriage later than young adults from low-SES families (H1)*. However, *if young adults start to cohabit, we expect that the impact of parental SES on marriage timing becomes weaker (H2).*

Country differences in the meaning of cohabitation

The relationship between parental SES and marriage timing may not be the same across all societies, but may depend on the prevalence and meaning of cohabitation in a country. Earlier research already indicated that both the prevalence and meaning of cohabitation vary significantly across countries (Heuveline & Timberlake, 2004; Hiekel, 2014).

The SDT theory has often been used to describe and explain the rise in cohabitation and the cross-national diversity in the family and living arrangements (Lesthaeghe, 2010; Sobotka, 2008; Van de Kaa, 2001, but see Zaidi and Morgan (2017) for a critical appraisal). According to the SDT theory, all societies will experience the consequences of growing individualization, secularization, and weakening of family ties, albeit with a different starting time and speed of diffusion. Thus, country differences with regard to trends and patterns of

cohabitation result from countries being at different stages of this demographic transition. Sweden and Norway are often seen as forerunners in the SDT, followed by Western, Eastern, and Southern European countries. Following this SDT argument of different stages, we propose that four main stages can be distinguished in the cohabitation transition, as also proposed by Kiernan (2001). This cross-national diversity with regard to the meaning of cohabitation could also result in a different impact of parental SES on marriage timing across countries.

In the first stage, cohabitation is rare, has a lower status, and is less socially accepted than marriage. Marriage is still the norm and cohabitation is often seen as a "poor man's marriage" (Heuveline & Timberlake, 2004; Hiekel et al., 2014; Kalmijn, 2011). Few couples have their first child within cohabitation (Heuveline & Timberlake, 2004). If young adults start to cohabit, it is often a *prelude to marriage.* Given that these young adults often already have a strong intention to get married, the majority marries within a relatively short period of time. We expect that in countries that are in this first stage of the cohabitation transition, especially parents with a higher status stimulate their cohabiting children to get married quickly. Low-status parents will not be as insistent, because they often cannot make a large financial contribution to a marriage or do not value its importance (Heuveline & Timberlake, 2004; Kalmijn, 2011). Thus, the higher the status of parents, the sooner young adults enter into their marriage after they start to cohabit.

With regard to the second stage of the cohabitation transition, marriage remains a popular and valued institution and cohabitation just becomes an intermediate step or *trial marriage*. Although cohabitation is becoming more accepted and adopted by people from all social strata, it is seen as an intermediate step towards marriage, and marriage retains its dominant status. The majority of couples still marry, but they tend to postpone it (Heuveline & Timberlake, 2004; Hiekel et al., 2014; Kiernan, 2001). However, compared to the first stage, cohabitation is often seen as a testing ground: young adults do not intend to get married quickly after they started to live together. Due to this testing phase, the percentage of cohabiting relationships that break down swiftly should be relatively high. Moreover, the duration as well as the prevalence of cohabitation should be higher in countries in this stage compared to countries that are in the first stage. In these situations, high-status parents might socialize their children to delay their first marriage as these parents might see cohabitation as a good test whether their children have found the 'right' match. In countries that are in

this second stage of the cohabitation transition, it can be expected that the delaying impact of parental SES becomes weaker, but still influences the timing of first marriage after young adults start to cohabit. Young adults are less dependent upon their parents once they cohabit, but parents still want to have a say in the marriage process of their children.

In the third stage of the cohabitation transition, cohabitation is seen as *an alternative to marriage* (Heuveline & Timberlake, 2004; Kiernan, 2001). In this stage, marriage is losing its dominant status and might not be needed anymore once young adults live together. Especially in Western and Northern European countries, cohabitation has replaced marriage as first union and many young adults do not see the need to get married (Heuveline & Timberlake, 2004; Hiekel, 2014; Hiekel et al., 2014). The average cohabitation duration and the prevalence of cohabitation are high in these countries. However, still many people decide to get married once they become parents, thus many young adults still marry eventually. In this third stage, the dependence of cohabiting young adults on their parents and resources becomes even weaker and marriage becomes less popular compared to countries that are in the second stage. Therefore, we expect that after young adults start to cohabit, there is a minor or even no effect of parental status on marriage timing anymore, since marriage is even further postponed and more often does not even happen anymore.

Some Nordic countries (Norway and Sweden) are in the fourth and final stage of the cohabitation transition in which cohabitation is seen as *the norm* or as a permanent alternative to marriage (Heuveline & Timberlake, 2004). In these countries, the percentage of people who get their first child within cohabitation, as well as the prevalence and the duration of cohabitation, is higher than in all other countries. Cohabitation is not only seen as an alternative to marriage as union type (a union without children), but the majority of people even start their own family within a cohabiting relationship. Thus, cohabitation is also an alternative to marriage as family type. In this fourth stage, we expect no impact of parental SES on marriage timing anymore once young adults cohabit, since marriage is often foregone completely. Parents and their status will only affect the timing of first union formation, thus cohabitation, but no longer the timing of first marriage once young adults cohabit since marriage often does not take place.

Table 3.1 summarizes the four stages of the cohabitation transition as identified above and four indicators (prevalence of cohabitation, percentage of people that get their first child within cohabitation, and the percentage of people that married or separated shortly after the

start of cohabitation). For each cohabitation stage, we list the predictions of the relative magnitudes of these four indicators.

In summary, we expect that the impact of parental SES on marriage timing after young adults start to cohabit varies across countries that are in different stages of the cohabitation transition. However, when young adults are not (yet) cohabiting, we do not expect a difference between the cohabitation stages in the link between parental SES and marriage timing. Thus, for all the different stages of cohabitation we expect that *young adults from high-status families enter their first marriage later than those from low-status families when they are not cohabiting (H3).* However, once young adults cohabit, we expect cross-national variation in the impact of parental SES on marriage timing due to the different stages of the cohabitation transition. *In countries where cohabitation is seen as a prelude to marriage (first stage), we expect that after young adults start to cohabit, young adults from high-SES families enter their marriage earlier than adults from low-SES families (H4a).* With regard to the other stages of the cohabitation transition, *we expect that the further cohabitation is diffused, the weaker the impact of parental SES on marriage timing after young adults start to cohabit (H4b).*

Table 3.1. Four different stages in the cohabitation transition, including empirical indicators and theoretical predictions.

Cohabitation as…	% cohabited as first union	% first child within cohabitation	% married shortly after cohabitation	% separated shortly after cohabitation
Prelude to marriage	low	low	high	low
Trial marriage	high	low	low	high
Alternative to marriage	high	high	low	low
The norm	highest	highest	low	low

3.3 Data & Methods

Data

To test our hypotheses, we used data from 18 European and two North-American countries. Data for 16 countries come from the first wave of the Generations and Gender Study (GGS). The data were collected between 2002 and 2013, depending on the country (Fokkema et al., 2016). We only selected the GGS countries for which sufficiently detailed information is available on the cohabitation and marital history and on parental and individual's own educational attainment (Austria, Belgium, Bulgaria, Czech Republic, Estonia, France, Georgia, Germany, Hungary, Italy, Lithuania, Norway, Poland, Romania, Russia, and Sweden). For the United States and the United Kingdom, we used the Harmonized Histories (HH) dataset created by the Non-Marital Childbearing Network (Perelli-Harris, Kreyenfeld, & Kubisch, 2010). This HH dataset consists of data from the British Household Panel Survey, collected in 2005 and 2006 and US data from the National Survey of Family Growth (NSFG), collected in 2006-2008. For the two remaining countries, Canada and the Netherlands, we used the original datasets, respectively, the General Social Survey cycle 20—GSS (Béchard & Marchand, 2008) and the *Onderzoek Gezinsvorming* (English translation: 'Survey on Family Formation') - OG 2008 (CBS, 2012).

We focus on relative recent birth cohorts (born from 1960 onwards) because unmarried cohabitation occurred only rarely among the older cohorts (Billari & Liefbroer, 2010). After excluding respondents with missing information on at least one of the independent variables (6.5 percent missing for women and 7.3 percent missing for men), our analytical sample consists of 62,064 women and 52,353 men in 20 countries.

Dependent variable

Our dependent variable is the annual rate of entry into a first marriage. The year in which respondents had their first marriage was used to calculate the age of entry into first marriage in years. To construct the annual rate of entry into a first marriage, we converted the data into a person-year file for discrete-time even-history analyses (Allison, 1984), which we chose because of the ease of handling time-varying covariates (cohabitation history, educational attainment, and enrolment). We restricted our analysis to ages 15 to 40, because entering first marriage after age 40 is rare (Billari & Liefbroer, 2010). Respondents who did not enter

their first marriage before the age of 40 or were not married at the time of the interview were right-censored, either at age 40 or the age at the time of the interview, depending on which occurred first.

Independent variables

Parental education is used as indicator of the socio-economic status of parents. The highest level of educational attainment of both parents was available for all 20 countries, which we converted into a continuous and comparative measure of educational level, the International Standard Level of Education [ISLED], which ranges from 0 to 100 (Schröder & Ganzeboom, 2014). We used the average ISLED score of father's and mother's education, because we are interested in the overall effect of parental education and not whether fathers or mothers are more influential. The parental education measure was centered around its country-specific mean and divided by 10.

From the detailed information on the cohabitation history of the respondent, we created a time-varying binary variable whether young adults were cohabiting (1) or not (0) at a given age. Because we use annual information, the percentage of people that cohabited might be slightly underestimated since people that cohabited and married in the same year are not classified as cohabiters.

Country-specific information on the highest level of education completed was also available for the respondents and converted into the ISLED scale. We constructed a time-varying variable for respondents' educational level based on the year in which this highest level was reached, thereby assuming that respondents remained enrolled in school continuously after finishing primary school. The educational level is assumed to increase linearly from age 15 until the age at which respondents attained their highest educational level, after which it remains constant.

If information was missing with regard to the year of reaching the highest level of education, the median age of reaching a certain ISLED level in that country was used to impute the missing value. This time-varying variable of education was also centered around the country-specific mean and divided by 10. Next to the educational attainment of respondents, we also included a time-varying binary variable for educational enrolment, indicating whether respondents were enrolled in the educational system at a given age.

Table 3.2. Descriptive statistics for the dependent and main independent variables at the individual level.

	Median age of marriage		Average parental ISLED	Average ISLED	N (women)	N (men)
	Women	Men				
Austria	25	27	53.65	65.09	2978	1993
Belgium	25	27	46.93	58.71	1834	1647
Bulgaria	21	24	40.74	47.30	4072	3079
Canada	25	26	48.64	58.43	5706	4575
Czech Republic	22	25	50.57	51.44	2411	2335
Estonia	23	25	47.10	54.01	2039	1268
France	25	27	38.34	54.70	2471	1836
Georgia	22	25	49.05	53.89	2705	2346
Germany	25	27	54.35	56.11	2380	1840
Hungary	23	25	44.70	51.12	3016	2777
Italy	26	28	29.51	49.72	2312	2144
Lithuania	22	23	47.75	54.67	2240	2286
Netherlands	26	29	45.55	63.70	2165	1873
Norway	27	28	41.27	56.86	3633	3541
Poland	23	25	46.40	60.47	5102	4073
Romania	21	24	35.14	45.26	2257	2526
Russia	21	23	50.22	60.44	2468	1764
Sweden	28	30	50.46	58.19	2641	2404
United Kingdom	25	27	48.25	61.21	2423	1980
United States	23	24	49.47	49.73	7211	6066

The time-varying variable age was expressed as the number of years since age 15 and centered around its country-specific mean. The birth year of respondents was included as a continuous variable (ranging between 1960 – 1994[1]) and centered around its country-specific mean. The squared term of both of these variables was also included. Gender of the respondent was also included. Descriptive statistics of the dependent and main independent variables can be found in Table 3.2.

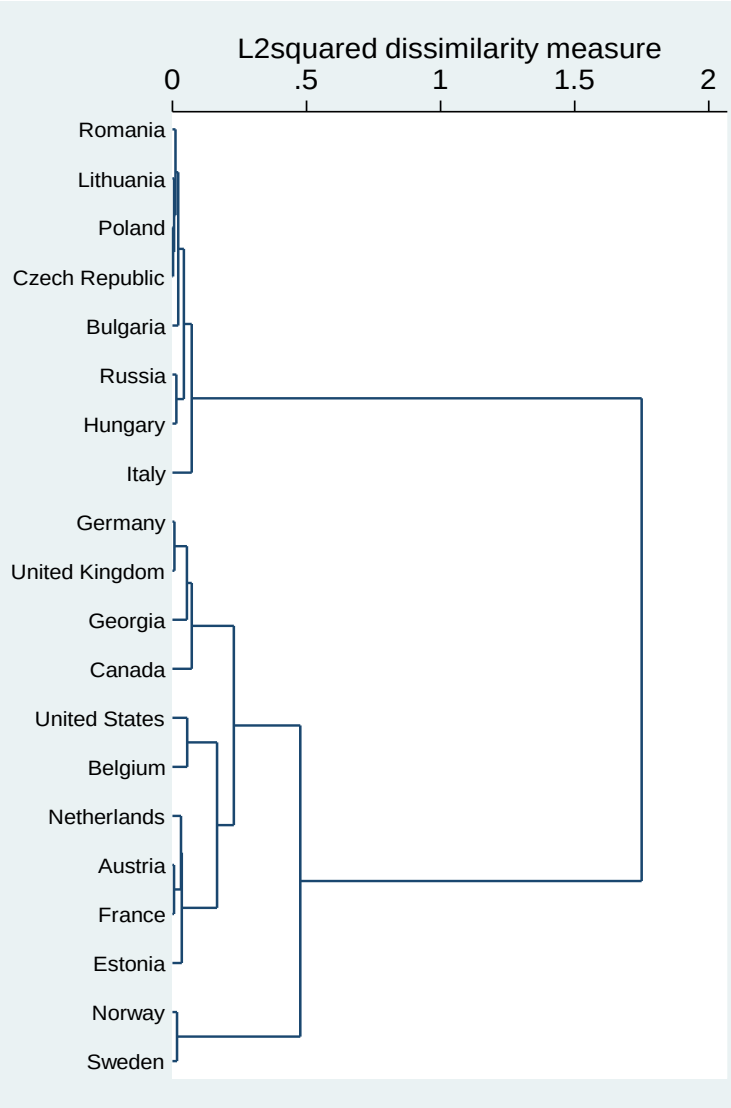
Country-level indicators

We used four country-level indicators to analyze how far countries have been developed with regard to the cohabitation transition process. One of the indicators is the prevalence of cohabitation, calculated by the percentage of respondents who cohabited as their first union. Next to this, we calculated the percentage of respondents who got their first child within cohabitation. Lastly, we calculated both the percentage of people who married within two years after they started to cohabit and the percentage of people who separated within two years after they started to cohabit. All country-level indicators were aggregated from the country-specific datasets.

Based on these four cohabitation indicators, a cluster analysis, using Ward's method, was performed to empirically examine which countries can be grouped together and whether the resulting classification is in line with our hypothesized cohabitation typology (Everitt, Landau, & Leese, 2001). Figure 3.1 shows the dendrogram of the cluster analysis. The dendrogram indeed indicates that four different clusters or stages can be identified. The first cluster consists of mainly Eastern European countries and Italy. The second cluster consists of Canada, Georgia, Germany and United Kingdom and the third cluster includes mainly West-European countries (together with Estonia and United States). The last cluster includes Norway and Sweden.

[1] For the Netherlands, birth year ranges from 1960 – 1984. We had to delete the youngest cohorts (born from 1985 onwards), since information about parental education is only asked when children do not live at the parental home anymore.

Figure 3.1. Dendrogram of a cluster analysis using four cohabitation indicators[1] for 18 European and two North-American countries.



[1] *Prevalence of cohabitation, percentage of people who got their first child within cohabitation, and the percentage of people who married or break down their relationship within 2 years after the start of cohabitation*

Table 3.3 summarizes the four indicators with regard to the meaning of cohabitation for each country, which were included in the cluster analysis. We grouped the countries according to the results of the cluster analysis. First, we found a set of countries where cohabitation is relatively rare. In Italy, Romania, Lithuania, Poland, Czech Republic, Bulgaria, Russia, and Hungary, fewer than 30 percent of the respondents ever cohabited.

Table 3.3. The meaning of cohabitation for 18 European and two North-American countries, based on the prevalence of cohabitation, percentage of people who got their first child within cohabitation, and the percentage of people who married or break down their relationship within 2 years after the start of cohabitation.

Cohabitation as…	% cohabited as first union	% first birth within cohabitation	% married within 2 yrs after cohabitation	% break down within 2 yrs after cohabitation
Prelude to marriage				
Italy	0.079	0.040	0.450	0.181
Romania	0.157	0.098	0.548	0.068
Lithuania	0.209	0.075	0.576	0.127
Poland	0.210	0.097	0.531	0.126
Czech Republic	0.249	0.109	0.506	0.118
Bulgaria	0.264	0.154	0.596	0.050
Hungary	0.274	0.122	0.443	0.202
Russia	0.292	0.133	0.558	0.169
Trial marriage				
Georgia	0.309	0.282	0.492	0.024
Canada	0.353	0.216	0.258	0.168
Germany	0.448	0.183	0.446	0.124
United Kingdom	0.456	0.261	0.441	0.160
Alternative to marriage				
United States	0.401	0.231	0.416	0.359
Estonia	0.550	0.352	0.408	0.089
Netherlands	0.579	0.230	0.270	0.136
Austria	0.606	0.339	0.290	0.164
Belgium	0.610	0.249	0.313	0.333
France	0.633	0.412	0.291	0.159
The norm				
Norway	0.651	0.512	0.228	0.197
Sweden	0.718	0.603	0.179	0.240

Moreover, in many of these countries around 50 percent or more married within two years after they started to cohabit[2] and the percentage of respondents who had their first child within cohabitation is around 10 percent or lower. These countries are in the prelude-to-marriage stage.

[2] The number of observations for Italy for these two indicators (percentage of people married within two years and separated within two years after cohabitation) is relatively small, since the prevalence of cohabitation is low.

At the other end of the distribution, we found Sweden and Norway, in which around 70 percent of all respondents ever cohabited, and where only around 20 percent of the people married within two years after cohabitation. In these countries, where cohabitation is seen as the norm, more than 50 percent of the respondents had their first child within a cohabiting relationship.

With regard to the middle two stages, the pattern is less clear. The cluster analysis distinguished between a cluster that includes France, Austria, the Netherlands, Estonia, Belgium, and the United States, and another cluster, including Canada, Germany, United Kingdom, and Georgia. With regard to the first of these two clusters, the results indicate that the percentage of cohabiters is above 50 percent in most of the countries (except United States), while this percentage is below 50 percent for the other group of countries. Also with regard to the percentage of people who had their first child within cohabitation we see a clear difference between these two groups: in general, more people had their first child within cohabitation in the first cluster than in the second cluster. Moreover, in general, fewer people married within two years after cohabitation in countries belonging to the first of these two clusters compared to the second cluster. These cohabitation indicators suggest that the countries belonging to the first cluster are further advanced in the cohabitation transition than the countries from the second cluster. Therefore, we labelled the first cluster the 'cohabitation as alternative to marriage' group and the second cluster the 'cohabitation as trial marriage' group.

The last indicator, the percentage of people who separated within two years after cohabitation, did not show a clear pattern with regard to the different stages. In Georgia, Bulgaria, Estonia, and Romania, this percentage is lower than 10 percent, while in Belgium and the United States the percentage of people who separated within two years after cohabitation is around one third.

Analytical strategy

For each country separately, we estimated discrete-time logistic hazard regression models to obtain the estimate and the standard error (SE) of the total and net effect of parental education on the timing of first marriage (Blossfeld, Hamerle, & Mayer, 2014). To estimate the net effect of parental education, respondents' educational level and enrolment were included. To analyze whether the effect of parental education on marriage timing weakens

after young adults start to cohabit, we included an interaction between parental education and the time-varying cohabitation variable. The country-specific estimates and SE's of the effects of parental education were obtained for both groups (not cohabiting and cohabiting). In all models, we included as controls age and age-squared, as well as birth year and its squared term. Moreover, we included in all models the interaction between parental education and age, since it is known that the impact of parental background diminishes across the life course (e.g. Axinn & Thornton, 1992; South, 2001; Wiik, 2009). Because women generally enter their first marriage at an earlier age than men (Coppola, 2004; Uecker & Stokes, 2008), we also included in all models an interaction between gender and age, and age squared, birth year and birth year squared. We also tested whether the impact of parental education was significantly different for men and women with an interaction between gender and parental education.

To examine cross-national variation in the link between parental SES and marriage timing, we used meta-analytic tools, as suggested by Bryan and Jenkins (2016). Due to the small number of countries (N<30), we prefer this approach to multilevel analysis. If the number of countries is small, the SE of the country-level effects is underestimated in standard multi-level models. By using meta-analytical tools, the small number of countries in this study will not result in too many incorrect rejections of a true null hypothesis, since these tools provide more conservative tests of our hypotheses than multilevel analysis.

We analyzed whether an association exists between parental education and first marriage and whether this association varies across countries by performing a meta-analysis in which the country-specific estimates and SEs of the discrete-time logistic regression models were included. In meta-analysis, between-country heterogeneity in the estimate of the effect of parental education is measured by I^2, the percentage of observed total variation across countries that is due to real heterogeneity rather than chance. I^2 can vary between 0 and 100 percent, and is calculated as 100*(Q-df)/Q, where Q is Cochran's heterogeneity statistic and df is the degrees of freedom (Harris et al., 2008). If I^2 is above 50 percent, substantial heterogeneity across countries exists, and an I^2 above 75 percent indicates considerable heterogeneity (Higgins, Thompson, Deeks, & Altman, 2003). Meta-analyses were performed for the total and net effect of parental education (controlling for respondents' education) on the timing of first marriage. Next to that, we also analyzed the effect of parental education when young adults are not cohabiting and when they start to cohabit.

To test whether the link between parental education and marriage timing differs by the stages of the cohabitation transition process, we estimated a meta-regression (Harbord & Higgins, 2008) in which we regressed the effect of parental education on marriage timing on the four stages of cohabitation (thus, three dummy variables). All models were fitted in STATA 15, using the **metan** command for meta-analyses and **metareg** for meta-regressions. Countries constitute the units of these meta-analytical tools. Countries with more respondents have more influence on the relationship, because in meta-analysis units are inversely weighted to the precision of their effect estimate as indicated by their SE squared.

In the result section, we will first show the overall effect of parental education on marriage timing for all the countries pooled, as obtained from the meta-analysis. Step by step we show what, in general, happens with the impact of parental education after including (1) individuals' own educational level and enrolment, and (2) the interaction between parental education and cohabitation. Moreover, we test whether there is significant between-country heterogeneity in these models. If so, the country-specific results are shown. To present the country-specific effects, we classified the 20 countries according to the four cohabitation stages constructed in the cluster analysis, namely (1) cohabitation as prelude to marriage, (2) cohabitation as trial marriage, (3) cohabitation as an alternative to marriage, and (4) cohabitation as the norm.

3.4 Results

Pooled model

Table 3.4 shows the overall mean of all the country-specific estimates and SE's, to test whether there is, in general, an impact of parental education on the marriage timing. The coefficients are shown as log-odds (B). The first model of Table 3.4 shows an overall significant delaying effect of parental education on the timing of first marriage (B = -.127, p<.01). The annual rate of entering first marriage decreases with 11.9 percent (=exp (-.127)) if the ISLED of parents increases with 10 points, thus the higher the education of parents, the later young adults enter into their first marriage. This result is in line with hypothesis 1. The second model of Table 3.4 shows that after controlling for young adults' own educational attainment and enrolment, the net effect of parental education on the marriage timing of young adults remains statistically significant (B = -.096, p<.01). Thus, every 10 additional ISLED points of

Table 3.4. Overall pooled model for all the 20 countries for respondents born between 1960 and 1994: Effect of parental education on timing of first marriage. Results from meta-analysis based on discrete-time logistic models.

	Model 1	Model 2	Model 3a	Model 3b
	B (SE)	B (SE)	B (SE)	B (SE)
			Not cohabiting	Cohabiting
Effect parental education	-.127 ** (.014)	-.096 ** (.010)	-.121 ** (.014)	-.025 (.016)
Cross-national variation (I^2)	92.3%	83.5%	88.6%	83.5%

Note: In all models controlled for age and squared term, birth year and squared term, gender and the interactions between parental education and age (and squared term), gender and age (and squared term), and gender and birth year (and squared term).

*= p<.05, ** = p<.01 (two-tailed)

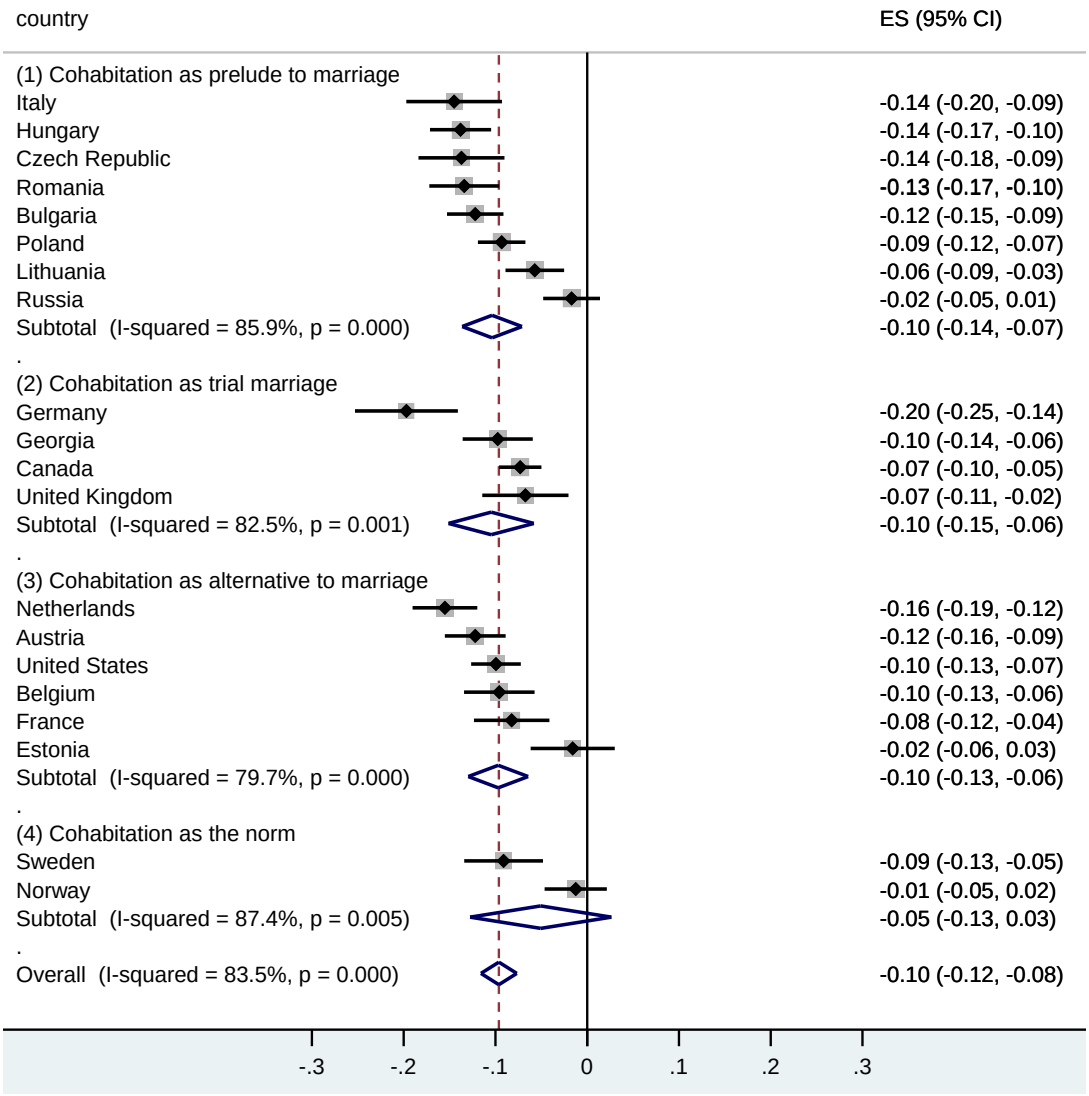
parental education decreases the rate of entering a first marriage by 9.2 percent (=exp (-.096)).

The third model of Table 3.4 shows the impact of parental education on the timing of first marriage when young adults do not (yet) cohabit (Model 3a) and once they cohabit (Model 3b). When young adults are not cohabiting, the impact of parental education on marriage is negative, so the higher the education of parents, the later they enter their marriage (B = -.121, p<.01). However, after young adults start to cohabit, there is overall no significant impact of parental education on the timing of first marriage anymore (B = -.025, p > .05). This result clearly confirms hypothesis 2, in which we stated that the impact of parental SES on marriage timing becomes weaker, after young adults start to cohabit.

Country-specific results

At the same time, the models in Table 3.4 show considerable cross-national variation in the link between parental education and first marriage (I^2 ranging from 83.5 – 92.3 percent), which makes it interesting to analyze the country-specific results. Figure 3.2 shows the results of a meta-analysis in which for each country the net effect of parental education on the timing of first marriage is analyzed, so after controlling for individuals' educational level and enrolment. The countries are grouped according to the stage of the cohabitation transition they belong to. In the majority of the countries, there is a delaying effect of parental education

Figure 3.2. Net effect of parental education on marriage for 18 European and two North-American countries (controlled for own education and enrollment). Meta-analysis of estimates from discrete-time logistic models.



Notes:
1) Significant gender differences found for US, DE, CA, IT, RO, and PL. See separate analyses for men and women in Appendix (Figure A3.1a and A3.1b).
2) In all models controlled for age and squared term, birth year and squared term, gender and the interactions between parental education and age (and squared term), gender and age (and squared term), and gender and birth year (and squared term).

on the timing of marriage. Only in Russia, Estonia, and Norway, there is no significant difference between young adults with high and low educated parents with regard to their marriage timing. The dotted line in Figure 3.2 represents the overall mean for all the countries pooled (which was reported in Table 3.4) and results show that more than half of the countries significantly deviate from this overall mean. We grouped the 20 countries into the four stages of cohabitation, but Figure 3.2 shows that also within each cohabitation stage

there is considerable cross-national variation in the link between parental education and marriage timing (I^2 ranging from 79.7 - 87.4 percent).

Results from the meta-regression thus show that the impact of parental education does not significantly vary between the four stages of cohabitation (results not shown). The subtotal means of the four stages in Figure 3.2 do not significantly differ from one another. Although the overall pattern is almost the same for men and women, a significant difference is found in the net impact of parental education on marriage timing between men and women for six countries (United States, Germany, Canada, Italy, Romania, and Poland). Figures A3.1a-A3.3b in the Appendix show the gender-specific analyses.

What happens with the impact of parental education on the timing of marriage after young adults start to cohabit? Figure 3.3a and 3.3b show the country-specific results of the link between parental education and marriage timing when young adults are not cohabiting (3a) and after young adults have entered a cohabiting relationship (3b), grouped by cohabitation stage. The results from Figure 3.3a indicate that, although the strength of the link between parental education and marriage varies across countries (two-third of the countries deviate from the overall mean), in the majority of countries there is a delaying effect of parental education on the rate of entry into marriage when young adults are not cohabiting (the exceptions are Russia, Estonia, and Norway). This result is in line with hypothesis 3. However, after young adults start to cohabit (see Figure 3.3b), we see that in almost all countries the effect of parental education changed, but in different directions.

Figure 3.3b shows that most cross-national variation is found between countries classified in the prelude-to-marriage stage. Four out of eight countries deviate from the overall mean. Moreover, for half of the countries, there is no significant impact of parental education on the timing of first marriage after cohabitation. For Italy, Poland, and Lithuania, there is a significant delaying effect, while in Bulgaria young adults with high-educated parents enter their marriage sooner than the ones with lower educated parents after they start to cohabit. We expected this push effect for all the countries that are classified in the prelude-to-marriage stage, but only for Bulgaria we found a positive effect of parental education on the timing of marriage, thus we cannot confirm hypothesis 4a.

In most countries in which cohabitation is primarily seen as a trial marriage, there is no impact of parental education on marriage timing once young adults cohabit. Thus, as expected, the effect of parental education weakens after young adults start to cohabit.

Figure 3.3a. The net effect of parental education on marriage for 18 European and two North-American countries when young adults are NOT living together. Meta-analysis of estimates from discrete-time logistic models.

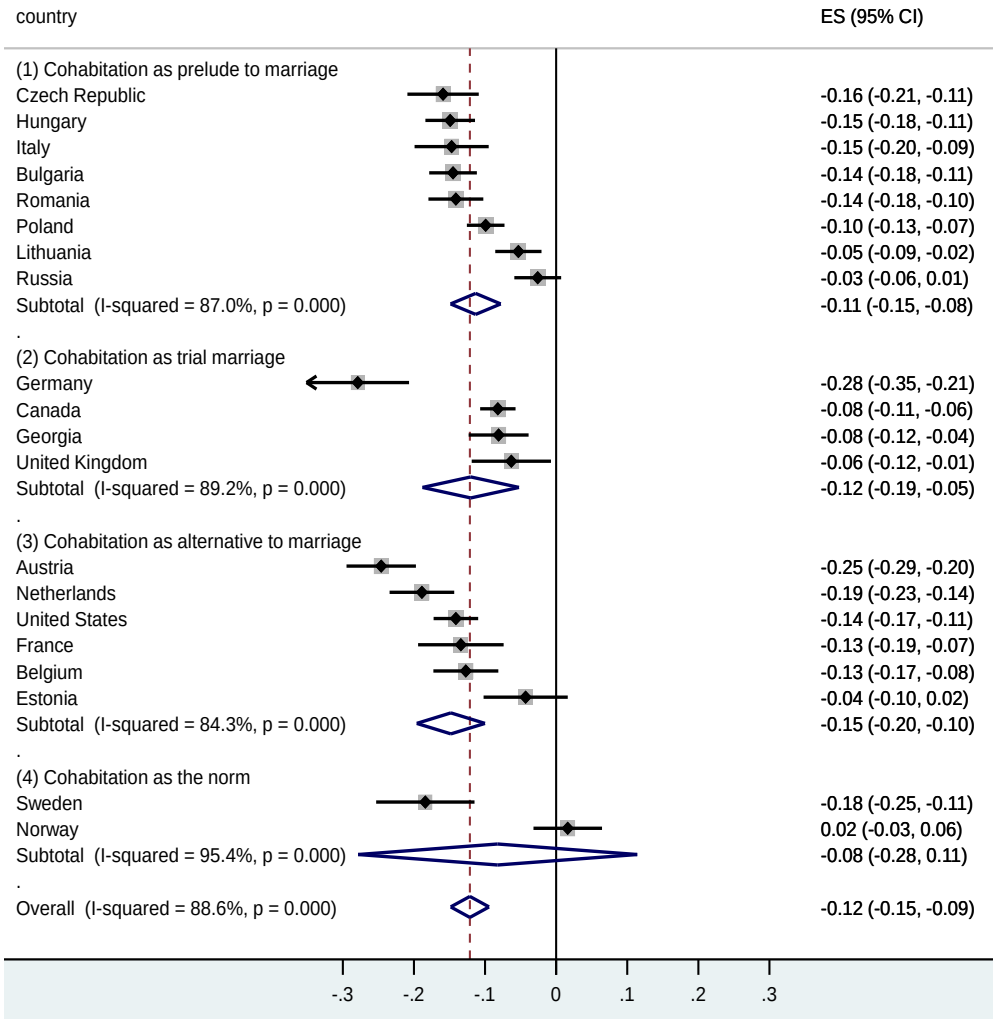
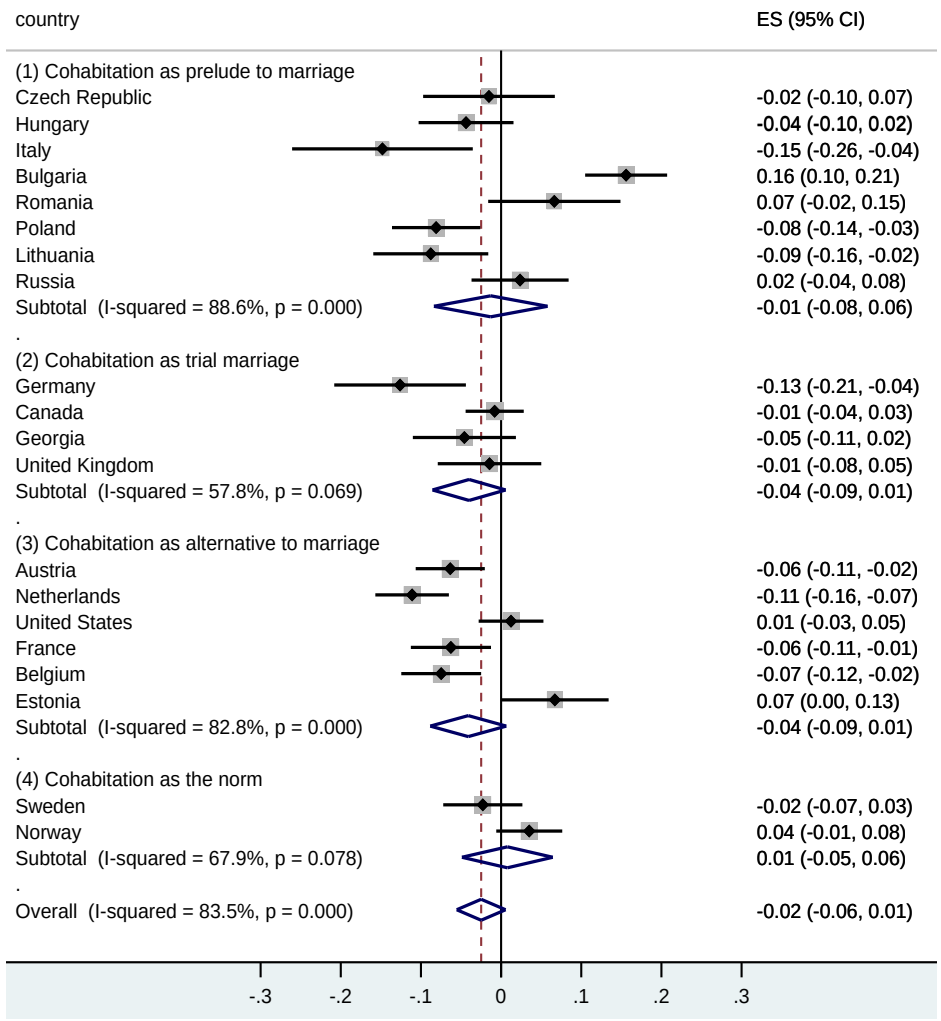


Figure 3.3b. The net effect of parental education on marriage for 18 European and two North-American countries when young adults are living together. Meta-analysis of estimates from discrete-time logistic models.



Notes: 1) Significant gender differences found for US. DE. CA. IT. and RO. See separate analyses for men and women in Appendix (Figure A3.2a-A3.3b).
2) All models controlled for age and squared term, birth year and squared term, gender and the interactions between parental education and age (and squared term), gender and age (and squared term), and gender and birth year (and squared term).

Only for Germany, we still find a significant delaying effect of parental education although this effect also diminished. Additionally, Germany is the only country within this cluster that deviate from the overall mean.

In many countries that are classified in the cohabitation-as-alternative-to-marriage stage, the effect of parental education indeed diminishes, as expected, after young adults start to cohabit. However, for many countries the effect of parental education on marriage timing remains significant. Only for the United States, we do not find a significantly delaying effect of parental education on marriage timing after young adults start to cohabit. In addition, three out of six countries deviate from the overall mean. Results from Figure 3.3b also shows that for Estonia the impact of parental education becomes positive, so young adults from high-status families marry sooner once they cohabit.

However, according to hypothesis 4b, we expected that the impact of parental education would be somewhat weaker for countries in which cohabitation is seen as an alternative to marriage compared to countries in which cohabitation is mainly seen as a trial marriage. Based on the results of Figure 3.3b, we find no confirmation of this hypothesis (4b). Results from the meta-regression also show that the impact of parental education on marriage timing after young adults start to cohabit does not significantly vary across all four stages of cohabitation (results not shown).

For both Sweden and Norway as countries where cohabitation is seen as the norm, we see that there is no impact of parental education on marriage anymore once young adults cohabit, which is in line with hypothesis 4b. Cohabitation is diffused the most in these countries, and therefore, we expected no impact of parental education on marriage timing anymore after young adults start to cohabit. Sweden fits the picture best. Although the effect of parental education is insignificant for Norway, it clearly deviates from the overall mean.

3.5 Conclusions & Discussion

Previous research has conclusively shown that young adults from high-status families enter their first marriage later than young adults from low-status families (e.g. South, 2001). However, the majority of these studies did not take into account the cohabitation history of young adults, while nowadays many young adults first cohabit before they formally marry

their partner. The first research question of this paper was, therefore, to what extent the effect of parental SES on the timing of first marriage weakens after young adults start to cohabit? The results from the overall models in which we pooled all 20 countries, show first of all, that a higher parental education lowers the rate of entering first marriage, even after controlling for individuals' own level of education and educational enrolment. However, this study also shows that it is crucial to take into account the cohabitation history, because after young adults start to cohabit, the impact of parental education on the timing of marriage clearly diminishes and even disappears. Earlier research already showed that the impact of parental background on marriage timing becomes weaker once young adults become older (Axinn & Thornton, 1992; South, 2001). As young men and women age, their own life-course events and preferences become increasingly important which results in a weaker impact of parental resources and preferences. The current study shows that, next to the fact that young adults become older and therefore become less dependent on their parents, it is also the start of a cohabiting union that results in a weaker impact of parental background. In a recent study of Mooyaart and Liefbroer (2016) on the Netherlands, it was also found that the impact of parental education becomes weaker after young adults entered a cohabiting union. Children who have left the parental home, and particularly children who already live together with a partner are likely to be less influenced by their parents and their resources because they can rely on their own resources or the resources of their partner. Thus, the current study shows that the choice to cohabit weakens the link between parental SES and marriage timing. Parents and their resources mainly affect their offspring's marriage timing when their children are not (yet) cohabiting. Thus, for future research it is important to take the cohabitation history into account once analyzing the timing of marriage.

The second research question of this study was to what extent cross-national variation exists in the link between parental SES and the timing of marriage before and after young adults start to cohabit and whether this variation is related to a countries' position in the cohabitation transition. Results show considerable cross-national variation in the link between parental SES and marriage timing. Although the direction of the net effect of parental education on marriage is the same in almost all countries, the strength of this effect varies considerably across countries. This cross-national variation remains large even if we take into account whether young adults cohabited or not. In eight countries, mainly West-European ones, parental education still has a delaying effect on marriage timing after young

adults start to cohabit. By contrast, in two East-European countries (Estonia and Bulgaria), parental education has an accelerating effect on marriage timing and for the remaining countries no significant impact of parental education on marriage timing is found after young adults start to cohabit.

One explanation for this substantial cross-national variation found in this study could be that the meaning of cohabitation differs across countries. Based on the literature, we constructed an empirical typology in which we distinguished four groups of countries according to how far they were advanced with regard to the cohabitation transition. We constructed our typology by performing a cluster analysis. The analysis indicated four clusters of countries which correspond quite closely to the four stages in the cohabitation transition that we delineated theoretically; namely (1) cohabitation as prelude to marriage, (2) cohabitation as trial marriage, (3) cohabitation as alternative to marriage and (4) cohabitation as the norm. These clusters and the countries included in each cluster strongly align with the stages of the cohabitation transition as suggested by Kiernan (2001) and Heuveline and Timberlake (2004), although the latter suggested a more fine-grained typology. To our knowledge, this is the first cohabitation typology that is empirically tested and it leads to a clear, theoretically based and empirically validated classification of countries into four groups, depending on the dominant meaning of cohabitation in a country.

However, the substantive cross-national variation in the link between parental education and the timing of marriage could not be explained by our typology. Differences in the strength of the effect of parental SES on marriage timing are not in line with expectations based on the four cohabitation stages. Moreover, within all four specific clusters of countries, we still found considerable variation across countries.

One possible explanation of why cross-national variation in the strength of the effect of parental education on marriage behavior is not linked to our cohabitation typology could be that the importance of parental background not only depends on the cultural or normative context of a country, but also on the economic and institutional context. For instance, Mills and Blossfeld (2013) argue that the degree of economic uncertainty that young adults face when they make demographic choices is important. It can be expected that the lower the degree of uncertainty, the less young adults depend on their family of origin. This level of dependence on the family of origin and the uncertainty young adults face, are linked to the country-specific culture, but next to this also to economic possibilities and institutional

support from the state. In addition, differences in the institutional and legal framework of cohabitation may explain cross-national variation (Dominguez-Folgueras & Castro-Martin, 2013; Perelli-Harris & Gassen, 2012; Poortman & Mills, 2012). In some countries, cohabiters have essentially the same legal rights as married people (for example, in the Netherlands), but in other countries cohabiting couples still remain more vulnerable, legally and financially, than married couples (Perelli-Harris & Gassen, 2012). This could be a reason for people to eventually marry, especially when they buy a house or become parents.

It can be expected that legal rules concerning intimate relationships will keep on adjusting to the demands of new family forms, and that differences between cohabitation and marriage with regard to legal protection will continue to diminish once countries are further advanced in the cohabitation transition (Dominguez-Folgueras & Castro-Martin, 2013). This would imply that when cohabitation is still rare, there are no institutions for legal regulation of cohabitation (other than marriage), but that once cohabitation is more seen as a trial marriage, also more legal arrangements will be introduced. Once cohabitation is seen as an alternative to marriage or even becomes the norm, cohabiting couples also acquire more of the same rights as married couples. These examples suggest that differences in the effect of parental background on marriage timing are not only rooted in differences in cultural norms, but also depend on economic and institutional differences across countries. Although culture, economy, and institutions often move in the same direction, there are still significant differences between and within countries. Thus, the explanation for the cross-national variation in the link between parental SES and marriage timing is possibly more complex and path-dependent. SDT critiques have argued that the SDT has ignored this path-dependence so far (Mills & Blossfeld, 2013; Zaidi & Morgan, 2017) and our study also suggests that a more comprehensive theory is needed to understand cross-national variation in the link between parental SES and marriage timing. For future research, it would therefore be interesting to analyze the interplay between various cultural, economic, and institutional factors within countries.

To conclude, the marriage formation process is socially stratified. Our study has contributed to understanding this stratification by showing how parental SES predicts the timing of marriage in different countries. A key lesson is that differences in marriage timing by family background became weaker and in general disappeared after young adults start to cohabit. However, we have to keep in mind that this does not mean that we can see

unmarried cohabitation as a way to solve inequalities in the marriage formation process. Due to unmarried cohabitation, as an additional step in the marriage formation process, the social stratification only shifts to the moment of entering the first co-residential union instead of the moment of entry into first marriage.

Chapter 4

Family forerunners? Parental separation and partnership formation in 16 countries*

* This chapter is currently under review at an international scientific journal. This chapter is co-authored by J. Härkönen and J. Dronkers (†, 30 March 2016). Härkönen and Dronkers started with the (idea of) paper already in 2011, but never finished it. Brons conducted all the analyses on up-to-date data and rewrote the main part of the manuscript together with Härkönen. Earlier versions of this chapter were presented at the PAA (San Fransisco, 2012) and Dutch Demography Day (Utrecht, 2017).

Abstract

The objective of this study is to analyze the relationships between parental separation and partnership formation patterns across 16 countries and over time, and how the relationships are shaped by contextual factors. Several studies have found that parental separation predicts higher rates of cohabitation and lower rates of marriage. Few studies have analyzed these relationships over time or across countries, and none have systematically analyzed whether they are moderated by contextual factors. In this study, retrospective partnership histories on 87,313 women from the Generations and Gender Survey (GGS) and Harmonized Histories (HH) datafiles were used. Annual data on entry into cohabitation or marriage as the first co-residential union, and on entry into marriage were analyzed using life table and event history techniques. The overall incidence of parental separation and non-marital birth rates were used as contextual-level measures in the event history analyses. The results of this study showed that the association between parental separation and partnership formation depended on the importance of marriage as the context for intimate and family life. Rising non-marital birth rates predicted a weaker positive association between parental separation and cohabitation, and a more negative association between parental separation and marriage. The associations between parental separation and partnership formation were not weaker when parental separation was more common. In conclusion, children of divorce have been among the forerunners of the increase in cohabitation and the retreat from marriage.

4.1 Introduction

Many studies have found that having separated parents is associated with lower rates of marriage and higher rates of cohabitation (e.g. Berrington, & Diamond, 2000; Cherlin, Kiernan, & Chase-Lansdale 1995; Erola, Härkönen, & Dronkers, 2012; Frisch & Hviid, 2006; Kiernan, 2003; Ongaro & Mazzuco, 2009; Perelli-Harris et al., 2017; Raab et al., 2014; Raab, 2017; Sassler, Cunningham, & Lichter, 2009; Wolfinger, 2003). This finding has been used to argue that the increases in (parental) divorce and separation have catalyzed the decline of marriage as the setting for intimate and family life and the increase of cohabitation seen across Europe and North-America (Perelli-Harris et al., 2017).

Research on parental separation and partnership formation has generally focused on single countries and time points, thus overlooking the potential variation in this association across countries and over time (for exceptions, see Kiernan, 2003; Li, & Wojtkiewicz, 1994; Perelli-Harris et al., 2017; Raab, 2017; Sassler, & Goldscheider, 2004; Wolfinger, 2003). Some studies have questioned the stability of this association. For example, Wolfinger (2003) found that children of divorce had higher rates of marriage in older American cohorts but lower marriage rates in more recent ones, and Perelli-Harris and colleagues (2017) showed how parental divorce did not predict cohabitation in countries where cohabitation was next to universal, although a clear positive association was found in countries where cohabitation was less common. These findings question the stability in the association between parental separation and partnership formation. At the same time, they suggest that children of divorce may have been among the forerunners of the family change often referred to as the Second Demographic Transition (Lesthaeghe, 1995; 2010; Van de Kaa, 2001) or the deinstitutionalization of marriage (Cherlin, 2004). However, despite providing descriptive evidence of variation in the association between parental separation and partnership formation, previous research has not systematically analyzed the contextual factors moderating this relationship. This has limited the ongoing—and often contradictory—research into the cross-national and temporal variation in the effects of parental separation (Härkönen, Bernardi, & Boertien, 2017), but also research on family change and its forerunners.

Our study presents the largest analysis of the relationship between parental separation and partnership formation across countries and over time. We used retrospective life course data from the Generations and Gender Survey and Harmonized Histories datafiles on 87,313 women from 16 countries and three birth cohorts to answer two main research questions. First, we asked the descriptive question of whether relationships between parental separation and partnership formation were similar across countries and over the three birth cohorts. Using life table analysis, we focused on two outcomes: the probability of cohabiting or marrying directly at the formation of one's first co-residential union by age 30, and the probabilities of getting married regardless of possible prior cohabitation(s) by ages 30 and 40. The first outcome refers to the relationship between parental separation and the increase in cohabitation, whereas the second relates to questions of a possible withdrawal from marriage. Second, we asked the explanatory question of whether the association between parental separation and the partnership formation outcomes varies by observed context-level factors. We theorized the role of two such factors, the importance of marriage as the context of intimate and family life, and the overall incidence of parental separation. We test the moderating role of these contextual factors on the association between parental separation and partnership formation using event history regression models. Our results contribute to the literatures on (the stability of) parental separation and family demographic outcomes, and on family change and its forerunners.

4.2 Theoretical Background

Parental separation and partnership formation

Parental separation predicts when and what types of partnerships young adults form. Several studies have reported that children of divorce—here used to refer to everyone with separated parents—start forming co-residential unions at a younger age than their peers from intact families (e.g., Cherlin, Kiernan, & Chase-Lansdale, 1995; Kiernan, & Hobcraft, 1997). This has often been associated with a more general pattern of "growing up earlier" (Weiss, 1979), in which children of divorce begin dating, have their sexual initiation, and leave the parental home at an earlier age than those from intact families. The reasons for this include conflict with parents and their possible new partners (Cherlin, Kiernan, & Chase-Lansdale, 1995;

Goldscheider, & Goldscheider, 1998; Wolfinger, 2003), and lower social control by (Thomson, McLanahan, & Curtin, 1992), or less support from separated parents (e.g. Aquilino, 1991; Goldscheider & Goldscheider, 1998).

Research analyzing whether parental separation predicts entry into marriage has found contrasting results. Many studies have found that parental separation is associated with lower rates of marriage (e.g., Erola, Härkönen, & Dronkers, 2012; Frisch, & Hviid, 2006; Ongaro, & Mazzuco, 2009; Wolfinger, 2003). Children of divorce are argued to hold more negative views about marriage and more positive views about cohabitation (Axinn, & Thornton, 1996; Ongaro, & Mazzuco, 2009; Perelli-Harris et al., 2017), to be more aware of the limitations of marriage (Amato, 1988), or to have lower levels of trust in their own relationships than those from intact families (Jacquet, & Surra, 2001). Moreover, parental separation is associated with lower educational attainment, but whether low education is also associated with lower rates of marriage varies cross-nationally (Bumpass, & Lu, 2000; Goldstein, & Kenney, 2001; Kravdal, 1999; Liefbroer, 1991; Liefbroer & Corijn, 1999; Manning, & Cohen, 2015). Children of divorce may also be less favored candidates for marriage (Erola, Härkönen, & Dronkers, 2012; Wolfinger, 2003; 2005), due to consequences of their parents' separation on psychological well-being (Härkönen, Bernardi, & Boertien, 2017), or on interpersonal skills (Amato, 1996; Amato, & DeBoer, 2001; Glenn, & Kramer, 1987; Wolfinger, 2005).

Other studies, in contrast, have found no effect of parental separation on marriage, or that children of divorce marry at a younger age than those from intact families (Cherlin, Kiernan, & Chase-Lansdale, 1995; Tasker, & Richards, 1994; Wolfinger, 2003). Attempting to explain this apparent contradiction, Wolfinger (2003) found that the association between parental separation and marriage has changed: with the exception of teen marriage, children of divorce entered marriage earlier in older cohorts but later in younger ones. Similar results were reported by Sassler and Goldscheider (2004; for contrasting results, see Li, & Wojtkiewicz (1994)).

According to Wolfinger (2003), his result suggested that rather than marrying (directly), children of divorce were taking advantage of the growing accessibility of cohabitation. A number of studies have reported similar results of higher prevalence of cohabitation among children of divorce than among those from intact families (e.g., Berrington, & Diamond, 2000; Cherlin, Kiernan, & Chase-Lansdale 1995; Kiernan, 2003; Ongaro & Mazzuco, 2009; Perelli-

Harris et al., 2017; Raab, 2017; Sassler, Cunningham, & Lichter, 2009). This does not, however, necessarily mean that children of divorce forego marriage altogether. Their attitudes toward or wariness to marriage, or their or their partners' skepticism of the quality of the partnership, can instead mean that cohabitation is used as a "trial marriage" (Heuveline & Timberlake, 2004; Hiekel et al., 2014; Perelli-Harris et al. 2017), and that children of divorce delay rather than forego marriage.

Parental separation and partnership formation in the context of family change

The above discussion suggested that the relationship between parental separation and partnership formation can vary across social contexts. Although most research has focused on single countries, in particular the United States or the United Kingdom, some cross-national research yields support for this expectation. Perelli-Harris and colleagues (2017), for example, showed that in Sweden and France, the likelihood of cohabitation did not vary by parental separation, and that the difference was generally small also in other countries where cohabitation was common, but larger in countries where cohabitation was less common. Despite results showing that the association between parental separation and partnership formation varies cross-nationally and over time, previous research has not systematically analyzed which contextual features may account for this variation.

Building on the literatures on family change and on the effects of parental separation, we discuss the importance of two contextual-level factors that can shape the association between parental separation and partnership formation, namely, the centrality of marriage as the context for intimate partnerships and family life, and the incidence of (parental) separation. Their importance in family life courses has varied considerably both across countries and over time (e.g., Andersson, Thomson, & Duntava, 2017), and we expect them to shape the association between the two.

The increased acceptability of having intimate partnerships and children outside marriage is one of the central features of the deinstitutionalization of marriage (Cherlin, 2004) or more broadly, the Second Demographic Transition (e.g., Lesthaeghe, 1995; 2010; Van de Kaa, 2001). This change did not take place evenly in all socio-demographic groups, but was led by "forerunners", who have been varyingly identified as students and the avant-garde (Lesthaeghe, 1995; 2010; Van de Kaa, 2001) or alternatively, as socioeconomically less advantaged groups (e.g., Perelli-Harris & Gerber, 2011; Trost, 1975). Although children of

divorce are less commonly considered in this literature, they may willingly or unwillingly become forerunners of the withdrawal from marriage and the increase in cohabitation because of their skepticism of marriage and awareness of its limitations, or because of the characteristics that make them less "marriageable". A similar proposition was already made by Wolfinger (2003) who argued that the children of divorce are among the first to take advantage of the increasing availability of alternatives to marriage.

This argument suggests that differences in partnership formation patterns by parental separation depend on the strength of the marriage institution. These differences would be small when marriage is highly normative, and cohabitation is sanctioned and marginal behavior. When cohabitation becomes more acceptable and commonly practiced, the gaps would grow if children of divorce are among the forerunners of this change. Finally, when cohabitation as the first union form becomes next to universal, differences by parental separation can yet again diminish (cf., Cherlin, Kiernan, & Chase-Lansdale, 1995; Van de Kaa, 2001; Villeneuve-Gokalp, 1991), as suggested by Perelli-Harris and colleagues (2017).

The above argument relates primarily to the type of first union (cohabitation or marriage). The normative importance of marriage as the context for family life can also affect whether children of divorce simply delay or forego marriage. Although cohabitation has increasingly replaced (direct) marriage as the first form of a co-residential union (Billari, & Liefbroer, 2010), the meaning of cohabitation continues to vary within and across countries from being a prelude to or a trial marriage, to being a long-term alternative to it (Heuveline, & Timberlake, 2004; Hiekel, Liefbroer, & Poortman, 2014). Cohabitation is more often seen as a long-term alternative to marriage in countries—such as the Nordic ones (Andersson, Thomson, & Duntava, 2017; Hiekel, Liefbroer, & Poortman, 2014; Sobotka, 2008)—in which cohabitation as the first family form is nearly universal, and more likely to be seen as a stage in the family formation life course where cohabitation is less institutionalized. Children of divorce may, again, be among the first ones to forego marriage. Similar to above, gaps in foregoing marriage can be expected to be minor when marriage—regardless of earlier cohabitation—is institutionalized and next to universal, but widen when its grip on family life weakens. However, even though countries vary in the prevalence and acceptability of long-term alternatives to marriage, life-time rates of marriage are high even in countries such as Sweden (Ohlsson-Wijk, 2011), which have been seen as being in the forefront in the

withdrawal from marriage. Therefore, we do not hypothesize similar late convergence in (low) marriage rates by parental separation as we did above in the case of cohabitation.

The prevalence of parental separation can also modify differences in partnership formation behavior by parental separation. According to the "waning effect" argument, the effect of parental separation should be weaker when parental separation is more prevalent (cf. Albertini, & Garriga, 2011; Dronkers, & Härkönen, 2008; Lansford, 2009; Raab, 2017; Sigle-Rushton, Hobcraft, & Kiernan, 2005). When separating is easier and common, the average child of divorce comes from a less troubled family, the separation process is likely to be associated with shorter periods of stressful acrimony, and being a child of divorce is less stigmatizing. When parental separation is a more common experience, children of divorce may differ less from those stemming from intact families in characteristics that predict partnership formation patterns. The waning effect thus leads to expect that the association between parental separation and partnership formation is weaker when parental separation is more common.

Although the waning effect hypothesis has not, to our knowledge, been directly tested in the context of partnership formation, related research on the intergenerational transmission of divorce has led to somewhat conflicting conclusions. Dronkers and Härkönen (2008) found a negative correlation between the prevalence of parental divorce and the intergenerational transmission of divorce. On the other hand, a long debate has concerned whether the intergenerational transmission of divorce has weakened over time, or not (Li & Wu, 2008; Wolfinger, 1999; 2005). More generally, despite the popularity of the waning effect argument, many earlier studies have failed to support it (cf. Härkönen et al., 2017).

4.3 Data & Methods

Data

In this study, we used retrospective yearly event history data from 16 European countries. Data for 15 countries came from the first wave of the Generations and Gender Survey (GGS). The data were collected in different years in different countries, between 2002 and 2013 (Fokkema et al., 2016). We chose the countries with sufficiently detailed information on partnership history, parental separation and parental educational attainment: Austria, Belgium, Bulgaria, Czech Republic, Estonia, France, Georgia, Hungary, Italy, Lithuania, Norway,

Poland, Romania, Russia, and Sweden. For the United Kingdom, we used the Harmonized Histories data set created by the Non-Marital Childbearing network and made publicly available to the Generations and Gender Programme research community (for information, see Perelli-Harris, Kreyenfeld, & Kubisch, 2010). The Harmonized Histories data set consists of data from the British Household Panel Survey, collected in 2005 and 2006 and made comparable to GGS. In total, our data included 87,313 women. We focused on women, because gender differences in the timing of partnership formation may affect our findings. Table 4.1 gives an overview of the interview year(s), birth cohorts and the number of women, respectively, in each country.

Table 4.1. Birth cohorts, interview year and number of women per country.

	Birth cohort	Interview year(s)	N
Bulgaria	1930-1986	2004	6,271
Russia	1930-1987	2004	5,983
Georgia	1930-1988	2006	4,912
France	1930-1987	2005	5,118
Hungary	1930-1983	2004-2005	6,681
Italy	1938-1985	2003	5,109
Romania	1930-1987	2005	5,462
Norway	1930-1988	2007-2008	7,064
Austria	1963-1990	2008-2009	2,868
Estonia	1930-1983	2004-2005	4,153
Belgium	1930-1990	2008-2010	3,443
Lithuania	1930-1988	2006	4,394
Poland	1930-1993	2010-2011	11,339
Czech Republic	1930-1987	2004-2006	4,604
Sweden	1933-1994	2012-2013	4,924
United Kingdom	1930-1987	2005-2006	4,988
Total	1930-1994	2003-2013	87,313

Sources: Gender and Generations Surveys (GGS) and Harmonized Histories (HH).

Analysis

The empirical analysis had two parts: A descriptive life table analysis, and an event history regression analysis. In both cases, we focused on two dependent variables, namely the type of the first co-residential union (cohabitation vs. marriage), and first marriage. Women entered the risk of union formation at age 16, if they had, by that time, not yet been in a co-residential union. They exited the risk of union formation at the age of their first cohabiting union or first marriage, respectively, or when right-censored at interview, or at age 30 or age 40 (depending on the analyses, see below).

The main independent variable was parental separation. We defined children of divorce as those who experienced parental separation at age 16 or earlier. The timing of parental separation was not available for the United Kingdom and the Czech Republic. For these countries, we relied on the available information on whether the parents had separated.

Life table analysis

We used life table methods to estimate partnership formation patterns by parental separation in 16 different countries and up to three different cohorts. We estimated cumulative probability and cumulative incidence functions on differences in partnership formation by parental separation, which tell us of the experience of partnership formation irrespective of its timing.

The descriptive analysis produced three types of estimates. First, we estimated the cumulative probabilities of having entered any co-residential union by age 30 (irrespective of whether this is cohabitation or marriage). Almost everyone in the data who ever entered a co-residential union had done so by age 30; this cut-off age also enabled us to expand the number of cohorts we could include in the analysis without running into problems with small case numbers.

Second, we estimated the cumulative incidences of having entered premarital cohabitation or having married directly by age 30. Because premarital cohabitation and direct marriage are competing events, regular life table methods produce biased estimates of cumulative probability functions. Therefore, we estimated cumulative incidence functions for these competing events using the Stata's *stcomlist* command (Clayton, 2017), and the *stpepemori* command to assess the statistical significance between the children of divorce and those from intact families (Coviello & Boggess, 2004).

Third, we estimated cumulative probabilities of marrying (regardless of prior cohabitation experience) by age 30, as well as by age 40. These analyses complement the estimates of first union formation by allowing marriage later in life, and up to age 40.

To assess changes over time, the data were divided into three cohorts, to women born 1930-1949, 1950-69, and 1970 and thereafter. This division was done on practical grounds, so as to maximize case numbers and at the same time allow cohorts sufficient time in the data. Each country-cohort had to have at least 500 women and at least 20 parental separations to be included in the analysis on cohort patterns, in order to avoid unreliable coefficients due to few parental separations in a small cohort. As a result, for some countries the oldest birth cohort was not available, whereas for others we could observe all three cohorts. In the analysis of marriage by age 40, we were restricted to analyzing change over the two oldest cohorts in 14 countries (Austria and Italy were excluded).

Event history analysis

The objective of our event history analysis was to assess whether the associations between parental separation and partnership formation are moderated by the importance of marriage as the setting for intimate and family life as well as by the overall incidence of parental separation. We pooled the data from each country into one file and estimated discrete-time event history regression models. We analyzed the two outcomes, the rate of entering cohabitation or marriage as the first co-residential union and the rate of marriage regardless of prior cohabitation, separately. In the analysis of formation of the first co-residential union, the data were right-censored at age 30. In the analysis of entry into marriage, the data were right-censored at age 40.

We used the percentage of non-marital births of all births as a measure of the importance of marriage as the setting for intimate and family life. Despite being a unidimensional measure, and the national idiosyncracies that can affect it, this measure is arguably the best single measure of the extent to which family life takes place outside marriage. Furthermore, unlike other measures, such as on cohabitation, the percentage of non-marital births is readily and reliably available across a wide range of countries and over long time periods. The data for all countries came from the Council of Europe (2006) and Eurostat (2018) and were available since 1960 for the majority of countries included in this study. We used the percentage of non-marital births as a period measure (over five-year

intervals), that is, as an indicator of the social context in which the women in our sample were forming their partnerships. Furthermore, we included a squared term of the percentage of non-marital births to allow for non-linear change in the relationship between parental separation and partnership formation during the deinstitutionalization process of marriage, as theorized above.

The second macro-level variable, the percentage of children of divorce in each birth cohort, is aggregated from the GGS and Harmonized Histories data using the three birth cohorts for each country. Following the above theoretical discussion of variation in the effects of parental separation, this measure was a cohort-measure indicating the social context during the time when the women grew up and some experienced parental separation. For better interpretation, both macro indicators are centered around the mean. The descriptives of these macro indicators can be found in Table 4.2.

In addition, we included six control variables in the event history analyses. The highest level of educational attainment of both parents was available for all 16 countries, which we converted into a continuous and comparative measure of educational level, the International Standard Level of Education [ISLED], which ranges from 0 to 100 (Schröder & Ganzeboom, 2014). We used the average ISLED score of the father's and mother's education to control for parental education. Parental education was centered around the country-specific mean and divided by 10. We also controlled for age (minus 15 years) and age squared, birth cohort and its squared term, and a series of country dummy variables (with the United Kingdom as the reference country). The country-specific descriptives of all independent variables and of the dependent variables can be found in Table 4.2.

We analyzed the rate of entering cohabitation or direct marriage as the first co-residential union using discrete-time competing risks event history regression, estimated with multinomial regression models on discrete-time data (Yamaguchi, 1991). The rate of entering marriage—regardless of prior cohabitation—was analyzed using regular discrete-time event history regression (binary logistic regression) (Yamaguchi, 1991). In both cases, we interacted the macro-level variables with parental separation. Because we control for the country dummies, we also control for any stable but unobserved between-country differences. Our estimates are thus best interpreted as reflecting how change in the macro-variables predicts change in the association between parental separation and partnership formation over time. By controlling for a continuous measure of birth year (and its squared term), we also adjust

for secular changes that affected all countries. We estimated cluster robust standard errors to allow for intra-country dependencies.

Table 4.2. Descriptive statistics for the main dependent and independent variables, separately for each country.

	% ever partner (at age 30)	% ever married (at age 30)	Mean duration first union	Mean parental education	Average birth year	% experienced parental separation (before age 16)	% non-marital birth
United Kingdom	76.8	60.9	8.8	43.5	1961	21.7	20.8
Sweden	83.3	47.1	8.2	45.2	1965	23.3	38.5
Czech Republic	74.2	66.4	8.4	45.2	1961	16.2	10.5
Poland	81.7	76.8	8.8	38.6	1960	6.8	7.9
Lithuania	75.9	70.2	9.2	38.4	1959	9.4	10.0
Belgium	84.6	65.9	8.1	41.4	1962	10.3	11.1
Estonia	88.1	72.7	8.4	38.0	1956	14.8	24.0
Austria	77.7	47.1	8.2	53.8	1975	14.8	27.5
Norway	82.8	58.8	8.9	46.3	1960	9.7	24.0
Romania	88.1	84.7	7.6	28.0	1956	5.6	8.5
Italy	70.5	67.6	10.5	24.6	1959	1.6	4.8
Hungary	84.0	76.7	8.0	36.4	1957	9.2	12.0
France	82.0	60.5	8.7	33.4	1959	11.7	19.6
Georgia	78.5	68.7	8.4	43.0	1960	3.5	34.9
Russia	84.4	76.5	8.1	39.7	1958	14.4	14.8
Bulgaria	78.9	71.3	7.5	36.2	1962	6.8	17.6
Average	**80.7**	**67.0**	**8.5**	**39.5**	**1961**	**11.2**	**17.9**

Sources: Gender and Generations Surveys (GGS) and Harmonized Histories (HH). N persons = 87,313.

4.4 Results

Life table analysis of parental separation and partnership formation

Table 4.3 shows the share of women from different countries and birth cohorts who had ever been in a co-residential union, begun their first co-residential union as a cohabiting union or as marriage, and had ever been married, respectively, by age 30. Overall, one can detect major cross-national and cross-cohort variation in these partnership formation experiences. The share of women who began their first co-residential union as a marriage, as well as the share of ever-married women by age 30, have decreased over time in all countries. With some exceptions (most clearly, Italy), the share of women who had ever experienced a co-residential partnership by age 30 has remained stable. The decreases in direct marriage have been

replaced by an increase in (pre-marital) cohabitation as the first union. The decrease in the fraction of women who have ever married by age 30 shows that many of these cohabitations were not transformed into marriages by this age.

Do children of divorce differ from those from intact families in their union formation behaviors? Statistically significant ($p < 0.05$) differences are marked in bold font. The differences in having formed the first co-residential union are mostly nil or minor, but the statistically significant differences in having formed a co-residential union by age 30 are in favor of the children of divorce. There are larger differences in the type of the first union. As a general pattern, one can conclude that where statistically significant differences exist (in 29 out of 46 country-cohorts), children of divorce are more likely to cohabit in their first co-residential union rather than marry directly (cf. Kiernan, 2003). At its largest, the difference was about 15 percentage points. The only exception to this pattern is the oldest cohort in Georgia, where children of divorce were more likely to marry directly, and where there were no differences in cohabitation. The differences in the share of ever-married women by age 30 are statistically significant in 15 country-cohorts (out of 46). Although marriage tended to be less common among the children of divorce, we find four cases (the Estonian 1950-69, Georgian 1930-49, Lithuanian 1950-69, and the Norwegian 1930-49 cohorts) where children of divorce were more likely to have married by age 30 than those from intact families.

Are the apparent differences in partnership formation patterns related to the prevalence of each partnership formation type, as we theorized? As mentioned above, the prevalence of any union formation is high in all country-cohorts, and differences by parental separation are minor.

Table 4.3. Parental separation and women's union formation by age 30, cumulative probabilities and incidences. Statistically significant ($p < 0.05$, two-tailed test) differences in bold font.

		First partnership age 30		First partnership (competing risk) age 30				First marriage age 30	
				Cohabitation (1)		Marriage (2)			
Parents separated?		No	Yes	No	Yes	No	Yes	No	Yes
Austria	1930-1950	…	…	…	…	…	…	…	…
	1950-1970	0.90	0.89	**0.62**	**0.71**	0.26	0.16	0.70	0.63
	1970-…	**0.87**	**0.91**	**0.70**	**0.84**	**0.15**	**0.07**	**0.52**	**0.42**
Belgium	1930-1950	0.82	0.82	0.27	0.37	0.54	0.45	0.79	0.74
	1950-1970	**0.90**	**0.81**	0.44	0.55	**0.44**	**0.22**	**0.80**	**0.58**
	1970-…	**0.92**	**0.93**	**0.70**	**0.86**	**0.20**	**0.06**	**0.55**	**0.42**
Bulgaria	1930-1950	0.85	0.79	0.13	0.13	0.71	0.58	0.82	0.79

	1950-1970	**0.91**	**0.92**	0.22	0.27	0.68	0.63	0.87	0.85
	1970-…	0.83	0.70	**0.39**	**0.44**	**0.42**	**0.26**	**0.69**	**0.47**
Czech Republic	1930-1950	0.81	0.80	0.07	0.15	0.73	0.64	0.79	0.79
	1950-1970	0.87	0.87	**0.14**	**0.26**	**0.72**	**0.60**	0.83	0.82
	1970-…	0.78	0.78	**0.41**	**0.48**	0.36	0.29	0.60	0.56
Estonia	1930-1950	**0.90**	**0.94**	0.16	0.20	0.73	0.72	0.86	0.87
	1950-1970	**0.92**	**0.94**	**0.37**	**0.46**	0.54	0.48	**0.81**	**0.82**
	1970-…	**0.86**	**0.85**	**0.68**	**0.73**	0.16	0.11	0.47	0.42
France	1930-1950	0.84	0.84	**0.10**	**0.22**	0.73	0.59	0.80	0.78
	1950-1970	0.87	0.85	**0.50**	**0.60**	**0.36**	**0.24**	0.65	0.60
	1970-…	**0.87**	**0.88**	**0.75**	**0.83**	0.10	0.04	**0.50**	**0.36**
Georgia	1930-1950	**0.82**	**0.92**	0.21	0.19	**0.59**	**0.73**	**0.76**	**0.86**
	1950-1970	0.88	0.85	0.28	0.35	0.58	0.47	0.81	0.76
	1970-…	0.77	0.78	0.42	0.46	0.34	0.32	0.54	0.52
Hungary	1930-1950	0.91	0.95	0.02	0.03	0.88	0.92	0.90	0.93
	1950-1970	0.90	0.90	**0.11**	**0.17**	0.78	0.73	0.86	0.87
	1970-…	**0.79**	**0.82**	**0.39**	**0.49**	0.39	0.33	0.58	0.52
Italy	1930-1950	…	…	…	…	…	…	…	…
	1950-1970	0.76	0.74	0.06	0.15	0.67	0.59	0.73	0.63
	1970-…	0.56	0.49	0.12	0.23	**0.44**	**0.26**	0.50	0.48
Lithuania	1930-1950	0.80	0.77	0.03	0.08	0.75	0.70	0.78	0.74
	1950-1970	**0.84**	**0.89**	0.07	0.12	0.75	0.77	**0.81**	**0.86**
	1970-…	0.83	0.83	**0.32**	**0.40**	0.51	0.43	0.70	0.67
Norway	1930-1950	**0.82**	**0.88**	0.13	0.16	0.68	0.72	**0.78**	**0.84**
	1950-1970	**0.89**	**0.90**	**0.59**	**0.74**	**0.29**	**0.15**	**0.67**	**0.56**
	1970-…	**0.86**	**0.91**	**0.75**	**0.85**	**0.10**	**0.05**	**0.41**	**0.36**
Poland	1930-1950	0.89	0.92	0.04	0.10	0.83	0.82	0.88	0.87
	1950-1970	**0.87**	**0.90**	**0.06**	**0.14**	0.80	0.75	0.85	0.87
	1970-…	0.86	0.87	0.28	0.43	0.55	0.43	0.76	0.67
Romania	1930-1950	**0.91**	**0.93**	**0.06**	**0.15**	0.84	0.78	0.89	0.89
	1950-1970	0.94	0.96	**0.12**	**0.22**	0.82	0.74	0.91	0.89
	1970-…	0.87	0.89	**0.21**	**0.40**	**0.66**	**0.49**	0.82	0.82
Russia	1930-1950	0.85	0.87	0.14	0.17	0.70	0.69	0.81	0.82
	1950-1970	**0.90**	**0.93**	**0.17**	**0.29**	0.72	0.64	0.85	0.84
	1970-…	**0.87**	**0.94**	**0.36**	**0.51**	0.50	0.41	0.74	0.71
Sweden	1930-1950	0.89	0.87	**0.37**	**0.52**	**0.51**	**0.35**	**0.79**	**0.68**
	1950-1970	**0.91**	**0.92**	**0.79**	**0.85**	**0.11**	**0.05**	**0.53**	0.46
	1970-…	**0.89**	**0.92**	**0.79**	**0.88**	**0.07**	**0.04**	0.36	0.33
United	1930-1950	0.89	0.87	**0.03**	**0.05**	0.85	0.80	0.88	0.87
Kingdom	1950-1970	**0.82**	**0.84**	**0.30**	**0.43**	0.50	0.40	0.71	0.67
	1970-…	**0.86**	**0.88**	**0.66**	**0.76**	0.16	0.10	**0.53**	**0.40**

Sources: Gender and Generations Surveys (GGS) and Harmonized Histories (HH). N persons = 87,313.

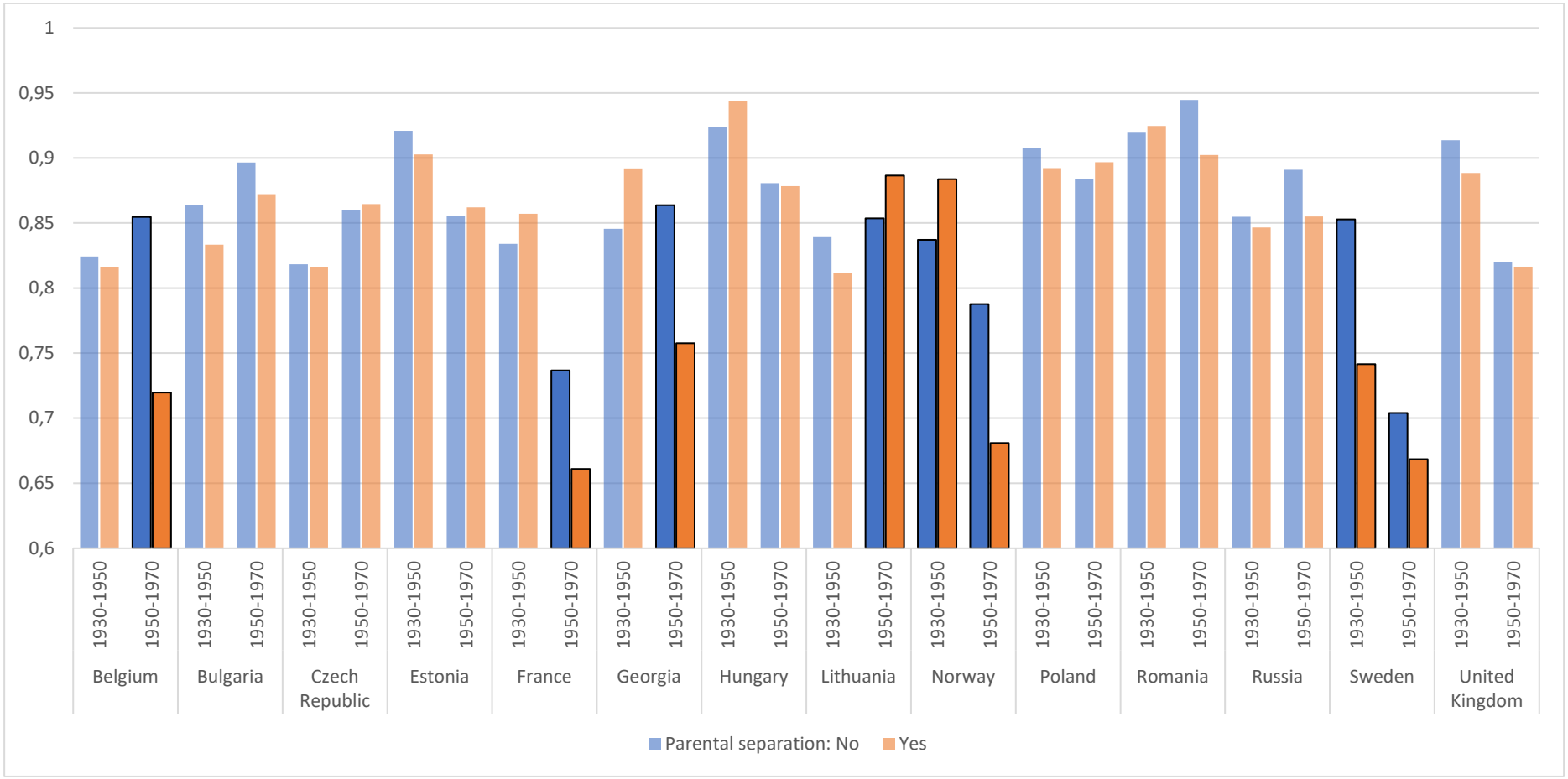
Regarding the type of first union, there is no apparent relationship between the prevalence of a union type and the gaps therein by parental separation when compared across all country-cohorts. Nevertheless, there is a tendency for unmarried cohabitation to replace direct marriage faster among the children of divorce. However, children of divorce have been more likely to cohabit rather than marry directly even in countries such as Sweden and Norway, where cohabitation as the first union type has in the latest cohort become next to universal and direct marriage a rarity. There seems to be a more suggestive pattern in differences in having ever married. When marriage by age 30 is the norm (with 80% or so of each cohort having married), gaps by parental separation are not statistically significant, or children of divorce are more likely to have married. However, when marriage rates fell, they often fell first among the children of divorce.

Figure 4.1 extends the follow-up in ever-marriage to age 40 in the two oldest cohorts in 14 countries (Austria and Italy are excluded, as they lack information on the oldest cohort). In most country-cohorts, the point estimates are very similar by parental separation and the differences are not statistically significant. In most country-cohorts, over 80% of all women had married by age 40. Importantly, none of the differences observed at age 30 (Table 4.3) had closed by age 40. In two country-cohorts (middle Lithuanian and oldest Norwegian cohorts), children of divorce were more likely to have married; the difference was already visible by age 30, and the probability of marriage was over 80%. Children of divorce were less likely to marry in six country-cohorts. Again, these differences were already visible by age 30. Importantly, in each case less than 80% of the children of divorce had married. Together, these results suggest that when marriage starts giving way to other partnership forms—whether long-term cohabitation, or instable cohabitation(s)—it happens first among the children of divorce.

Event-history analysis of contextual moderators

In the final stage of the analysis, we present the results from our discrete-time event history models, in which we analyze whether contextual factors moderate the association between parental separation and partnership formation. Following the theoretical discussion, we analyzed whether the strength and sign of the relationship depends on the social and normative importance of the marriage institution, and on the overall incidence of parental separation.

Figure 4.1. Parental separation and probability of having ever married by age 40, by country and cohort. Kaplan-Meier cumulative probability estimates, statistically significant differences ($p < 0.05$, two-tailed tests) in darker colors.



We present two different analyses: a competing risks event history analysis of entry into cohabitation versus marriage as the first co-residential union (Table 4.4, Model 1), and a regular event history analysis of entry into marriage (regardless of prior cohabitation history, see Table 4.4, Model 2). Estimates of the individual-level control variables show that parental education is associated with lower rates of entry into both cohabitation and marriage, as well as lower rates of ever marrying. This can reflect either postponement of these partnership types, foregoing them altogether, or both. The rate of entering these unions is positively curvilinear by age. The rate of entering cohabitations has increased with a weakening slope over birth cohorts. Compared to the United Kingdom, the rate of entry into cohabitation was higher in Austria, Belgium, Estonia, France, Norway, and Sweden, and lower in the Czech Republic, Lithuania, Hungary, Italy, Poland, Romania, and Russia. The entry rate to direct marriage was higher in Bulgaria, Estonia, Georgia, Hungary, and Russia, and lower in Austria, Belgium, and Sweden. The rate of ever marrying was higher in Bulgaria, Estonia, and Romania than in the United Kingdom, and lower in Austria, France, and Italy.

Our main interest is in the interaction effects of parental separation with the two context-level variables: the percentage of non-marital births (and its square), and the percentage of women who experienced parental separation. The macro-level variables are centered, and the estimates for parental separation show that at the average levels of parental separation and non-marital birth prevalence, children of divorce had a 56% higher annual rate (RRR = 1.557) of entering cohabitation, but that parental separation does not predict rates of direct marriage. However, parental separation predicted a lower rate of marrying (regardless of prior cohabitation) by age 40. Together, the results suggest that at these average levels of parental separation and non-birth prevalence, children of divorce formed first (cohabiting) unions earlier than those from intact families, but either delayed or completely forewent marriage.

None of the main or interaction effects of the incidence of parental separation are statistically significant. This suggests that the changing (increasing) incidence of parental separation has not affected patterns of partnership formation neither among women from intact nor from separated families. The non-significant interaction effects provide evidence against the “waning effect” hypothesis of the consequences of parental separation stating that parental separation has a smaller effect when it is a more common experience. We find

more evidence for the moderating effect of the centrality of marriage on the relationship between parental separation and partnership formation.

When considering cohabitation as the outcome, the negative (RRR = 0.987) and statistically significant interaction term shows that the association between parental separation and the entry rate into cohabitation becomes weaker with an increase in the proportion of births to unmarried mothers, which we interpret as reflecting an increasing deinstitutionalization of marriage. For example, when the rate of births outside marriage increased from the average rate of 18% by 15 percentage points to 33%, the association between parental separation and the entry rate into cohabitation is expected to decrease from a risk ratio of 1.557 to 1.280 (1.557×0.987^{15}), with a 95% confidence interval (CI) ranging from 1.157 to 1.416.

The curvilinear main effect shows that the deinstitutionalization of marriage increases the entry rate into cohabitation among women from intact families at a decreasing slope. The negative (linear) interaction effect tells that this increase happens at a slower pace among the children of divorce, implying that when it comes to pre-marital cohabitation, children of divorce have been forerunners of this family change.

The main (linear) effect of the non-marital births rate on entry into direct marriage is negative. The interaction term is likewise negative—suggesting that the decrease in direct marriage happens at a faster pace among the children of divorce—but the coefficient is not significant at the 5% level. The basic pattern is similar when considering the rate of ever marrying as the outcome, but the interaction estimate shows a higher level of statistical significance. The negative main effect shows that an increase in non-marital birth rates decreased the rate of marriage among women from intact families, and the negative interaction tells that the decrease happened at a higher pace among the children of divorce. We interpret this as indicating that children of divorce were among the forerunners of the withdrawal from marriage when marriage became deinstitutionalized. The gap in marrying by parental separation grew as a result.

An increase in the non-marital birth rate by 15 percentage points from the average rate of 18% would lead to an expected parental separation coefficient of 0.727 (0.895×0.985^{15}; 95% CI: 0.645-0.820). On the other hand, a decrease in the non-marital birth rate by 15 percentage points would lead to an expected coefficient of 1.101 ($0.895 \times [1 / 0.985]^{15}$;

95% CI: 1.001-1.210). This implies that the parental separation gap is non-existent or even positive when marriage is institutionalized, but grows negative with its deinstitutionalization.

Table 4.4. Parental separation and union formation. Competing risks event history analysis for entry into first union by age 30 (Model 1, relative risk ratios and standard errors), and event history analysis for entry into marriage by age 40 (Model 2, odds ratios and standard errors).

	Model 1				Model 2	
	Cohabitation		Marriage		Ever married (age 40)	
	RRR	s.e.	RRR	s.e.	OR	s.e.
Individual level variables						
Parental separation	1.557**	(0.052)	0.988	(0.060)	0.895**	(0.035)
Parental education	0.933**	(0.020)	0.878**	(0.013)	0.923**	(0.011)
Age (minus 15)	1.308**	(0.032)	1.486**	(0.022)	1.203**	(0.011)
Age (minus 15) squared	0.971**	(0.003)	0.952**	(0.002)	0.976**	(0.002)
Birth cohort	1.033**	(0.006)	0.998	(0.006)	0.997	(0.005)
Birth cohort squared	0.999**	(0.000)	1.000	(0.000)	0.999**	(0.000)
Macro level variables						
% Parental separation in cohort						
Main effect	1.005	(0.006)	1.010	(0.011)	0.994	(0.009)
Interaction parental separation	1.007	(0.004)	0.998	(0.006)	1.007	(0.005)
% Non-marital births (period)						
Main effect	1.028**	(0.007)	0.953**	(0.008)	0.974**	(0.004)
Interaction parental separation	0.987**	(0.004)	0.989	(0.006)	0.986**	(0.003)
Main effect (squared)	0.999**	(0.000)	1.000	(0.000)	1.000	(0.000)
Interaction parental separation (with squared term)	1.000	(0.000)	1.000	(0.000)	1.000	(0.000)
Country (ref. United Kingdom)						
Austria	1.906**	(0.128)	0.627**	(0.080)	0.792**	(0.038)
Belgium	2.246**	(0.180)	0.664*	(0.106)	0.800*	(0.069)
Bulgaria	1.058	(0.101)	1.650**	(0.298)	1.224	(0.137)
Czech Republic	0.704**	(0.048)	0.968	(0.101)	0.907	(0.064)
Estonia	1.510**	(0.066)	1.549**	(0.157)	1.363**	(0.047)
France	1.583**	(0.099)	0.858	(0.109)	0.887*	(0.054)
Georgia	1.171	(0.174)	2.405**	(0.631)	1.313	(0.273)
Hungary	0.597**	(0.056)	1.448*	(0.246)	1.089	(0.111)
Italy	0.234**	(0.036)	0.721	(0.191)	0.582**	(0.106)
Lithuania	0.508**	(0.046)	1.022	(0.171)	0.883	(0.087)
Norway	2.115**	(0.184)	0.801	(0.116)	0.937	(0.078)
Poland	0.533**	(0.064)	1.073	(0.222)	0.889	(0.125)
Romania	0.628**	(0.085)	1.483	(0.375)	1.207*	(0.116)
Russia	0.858*	(0.056)	1.582**	(0.166)	1.333**	(0.069)
Sweden	2.892**	(0.260)	0.828**	(0.052)	1.212**	(0.087)
Constant	0.043**	(0.004)	0.067**	(0.010)	0.121**	(0.009)
Log pseudolikelihood	-201727.94				-175795.96	
Number of observations (person-years)	602,605		602,605		795,842	

Sources: Gender and Generations Surveys (GGS) and Harmonized Histories (HH).

** p<0.01, * p<0.05 (two-tailed tests).

Together, the life table and event history findings suggest that children of divorce tend to form partnerships at an earlier age, which is line with many previous results. However, family change in the surrounding society affects which kinds of partnerships children of divorce and those from intact families form.Our findings are in line with Wolfinger's (2003) argument that children of divorce have been among the first to take advantage of the growing acceptance of non-marital family arrangements: they enter cohabitations at a higher rate, but delay or even forego marriage, possibly because they remain in stable cohabitations or because they experience more instable cohabitations. In any case, children of divorce have been among the forerunners of the retreat from marriage.

4.5 Conclusions & Discussion

In this paper, we have analyzed the association between parental separation and partnership formation behavior in 16 countries and over three birth cohorts that spanned 60 years. Using retrospective partnership history data on over 87,000 women, we conducted life table and event history analyses on the association between parental separation and partnership formation, focusing on the type of the first co-residential union (cohabitation or marriage) and on whether one had ever married. Ours was the largest cross-national and cross-cohort analysis of parental separation and partnership formation, and the first to explicitly test the moderating effects of macro-level contextual features on the association.

The motivation for our paper stemmed from two literatures. A common finding in the divorce literature has been that children of divorce have lower rates of marriage and higher rates of cohabitation. Suggested reasons for this pattern include attitudes toward cohabitation and marriage and awareness of their respective limitations, trust in own relationships, and life course and psychological implications of parental separation. These associations have been widely reported, but few studies have explicitly focused on whether they vary over time or cross-nationally. Another argument—though with varying levels of empirical support—in the divorce literature states that the effects of parental separation become weaker when parental separation becomes more common (cf. Härkönen, Bernardi, & Boertien, 2017). This "waning effect" argument leads to expect that the association

between parental separation and partnership formation patterns is weaker when parental separation is more commonplace.

A second strand of literature that motivated our paper concerns family change—in particular, the retreat from marriage and increase in cohabitation—and its forerunners. Much of this research has focused on socioeconomic predictors, but results on whether low or high socioeconomic groups are most likely to cohabit vary cross-nationally and over time (Brons, Liefbroer, & Ganzeboom, 2017; Bumpass & Lu, 2000; Cohen & Manning, 2010; Kennedy & Bumpass, 2008; Kravdal, 1999; Lichter & Qian, 2008; Liefbroer, 1991; Manning & Cohen, 2015; Mooyaart & Liefbroer, 2016). Based on the proposed mechanisms for the association between parental separation and partnership formation, we argued that children of divorce would be among the forerunners of the increase in cohabitation and the retreat from marriage, being among the first to take advantage of the emerging opportunities for intimate and family life outside marriage (cf. Wolfinger, 2003).

Our descriptive life table analyses over three cohorts showed that by age 30, there were small or no differences by parental separation in having formed any co-residential partnership. However, we found more often differences in the type of partnership formed, which confirmed previous findings that children of divorce were more likely to have cohabited and less likely to have married, whether directly or overall. These results are in line with previous research (e.g. Cherlin, Kiernan, & Chase-Lansdale 1995; Erola, Härkönen, & Dronkers, 2012; Ongaro & Mazzuco, 2009; Sassler, Cunningham, & Lichter 2009; Wolfinger, 2003). In many country-cohorts, differences in having ever married reflected differences in postponement. Even when children of divorce had been less likely to have married by age 30, there were often no gaps in marriage by age 40. However, children of divorce had a lower probability of having married by age 40 in country-cohorts where this probability had overall decreased (roughly, to below 80-85%). This was a first piece of evidence suggesting that children of divorce have been forerunners of family change.

We analyzed the "waning effect" and "forerunner" hypotheses more closely in event history analyses, which pooled together data from the 16 countries and introduced contextual variables on the overall incidence of parental separation in each country-cohort, and on the non-marital birth rate in each period. We argued that the latter proxies the "deinstitutionalization of marriage" (Cherlin, 2004) that has been a prominent feature of recent family change. These analyses produced two main findings. First, the "waning effect"

hypothesis was not supported. The interactions between the overall incidence of parental separation and own experience of parental separation were never significant. Second, the findings supported the "forerunner" hypothesis. Specifically, we found that children of divorce had higher rates of cohabitation when marriage was more institutionalized (measured by low non-marital birth rates), but this gap became smaller as women from intact families caught up in their rates of cohabitation.

We also found that children of divorce have been forerunners in the retreat from marriage. When marriage is institutionalized, children of divorce may even have higher rates of marriage (cf. Wolfinger, 2003), but as the deinstitutionalization of marriage proceeds, children of divorce are among the first ones to retreat from it. Future research should analyze whether the retreat from marriage among the children of divorce has been a consequence of an increase in stable, long-term cohabitation, or due to more instability in their cohabitations. Parental separation begets instability in own partnerships (Dronkers & Härkönen, 2008), and cohabitations are less stable than marriages. The combination of these two factors may help explain why children of divorce have been among the first to retreat from marriage.

All in all, our findings show that the children of divorce have been among the forerunners in adapting new partnership forms. This conclusion has implications on the debates on family change. Several scholars have argued that the rise in cohabitation and retreat from marriage reflects either "avant-garde" behavior led by those with the most resources (Lesthaeghe, 1995; 2010; Van de Kaa, 2001), or a "pattern of disadvantage" led by the socio-economically less well-off (Perelli-Harris & Gerber, 2011). Though not directly addressing this debate, our findings add to the literature on the drivers of family change by showing how children of divorce have been early adapters in these developments. Our interpretation that due to their experiences, children of divorce were among those ready and willing to grasp the opportunities for new partnership forms has implications for thinking more broadly about who drove these family changes and why. Because parental separation predicted a higher rate of entry into cohabitation, our results likewise support the idea that increases in (parental) separation and divorce have catalyzed the increase in cohabitation, particularly at the early stages of this change (Perelli-Harris et al., 2017). Finally, our findings question the argument that parental separation effects are weaker when parental separation is more common.

Chapter 5

Parental education and family dissolution: A cross-national and cohort comparison*

* A slightly different version is published as: Brons, M. D., & Härkönen, J. (2018). Parental Education and Family Dissolution: A Cross-National and Cohort Comparison. ***Journal of Marriage and Family***, 80(2), 426-443. Brons wrote the main part of the manuscript and conducted the analyses during Brons' internship at Stockholm University. Härkönen substantially contributed to the manuscript. The authors jointly developed the idea and design of the study. Earlier versions of this chapter were presented at the EPC (Mainz, 2016), Divorce Network Conference (Stockholm, 2016), PAA (Chicago, 2017), and the IUSSP International Population Conference (Cape Town, 2017).

Abstract

This is the first study to systematically analyze whether the association between parental education and family dissolution varies cross-nationally and over time. We use meta-analytic tools to study cross-national variation between 17 countries with data from the Generations and Gender Study and Harmonized Histories. The association shows considerable cross-national variation, but is positive in most countries. We find that the association between parental education and family dissolution has become less positive or even negative in six countries. Our findings show that the association between parental education and family dissolution is generally positive or nil, even if the association between own education and family dissolution is in many countries increasingly negative. We find suggestive evidence that the association is related to the crude divorce rate, but not to the generosity of the welfare state in these countries. We discuss the implications of these findings for understanding the stratification in family dissolution.

5.1 Introduction

Advantaged family backgrounds pave the way to higher education, higher incomes, and better health (Breen & Jonsson, 2005; Elo, 2009). Higher socio-economic backgrounds are also related to many favorable family demographic outcomes, such as postponement of childbearing beyond adolescence (Dahlberg, 2015) and marriage with highly educated partners (cf. Schwartz, 2013). Do favorable family backgrounds also beget family stability and the benefits associated with it? Recent research has paid much attention to the growing educational disparities in family dissolution (e.g. McLahanan, 2004; Härkönen & Dronkers, 2006; Amato, 2010), but this interest has not been matched by a similar focus on family dissolution patterns by parental educational background. Because of the importance of family background on individuals' future life chances, this omission limits our understanding of the social stratification in family demography.

Previous studies on the association between parental education and family dissolution have produced intriguing findings. In contrast to the increasingly negative association between own education and family dissolution in many societies (Härkönen & Dronkers, 2006), many studies have found a positive association between parental education and family dissolution (Sweden: Hoem & Hoem, 1992; the Netherlands: Klijzing, 1992; Janssen, 2001; Finnish women: Mäenpää & Jalovaara, 2014; Italy: Todesco, 2013), even when the relationship between own education and family dissolution is negative (Norway: Lyngstad, 2004; 2006). This suggests nuance to perspectives of the lower status character of family dissolution that have come to dominate the literature on stratification of family instability. However, other studies reported zero relationships (Australia: Bracher, Santow, Morgan & Trussel, 1993; UK: Berrington & Diamond, 1999; Finnish men: Mäenpää & Jalovaara, 2014) or a negative association (USA: Bumpass, Martin & Sweet, 1991), suggesting that the association may vary cross-nationally akin to the relationship between own education and family dissolution (Härkönen & Dronkers, 2006; Martin, 2006; Matysiak, Styrc, & Vignoli, 2014). Many of the above studies are also rather dated, raising the possibility that the association has changed over time, potentially from a positive to a negative one as has been reported for the educational gradient of divorce in many countries (Hoem, 1997; Chan & Halpin, 2008; De Graaf & Kalmijn, 2006; Härkönen & Dronkers, 2006; Raymo & Iwasawa, 2017).

This study presents the first comparative analysis of the association between parental education and family dissolution. In light of the above discussion, we first ask whether parental education is related to family dissolution in 17 European societies and whether this association varies cross-nationally. Second, has this association changed over time? Third, to understand the causes of the variation across societal contexts, we analyze whether cross-national and cohort differences in the association can be linked to two contextual-level variables that reflect the socio-cultural and economic contexts of family life, namely the average crude divorce rate and the generosity of the welfare state. Our analysis contributes to the understanding of (variation in) stratification of family dissolution, and of intergenerational effects on family dissolution, other family demographic behaviors (South, 2001; Wolfinger, 2003; Dronkers & Härkönen, 2008; Wiik, 2009; Dahlberg, 2015), and life chances more generally. We use family history data from the Generations and Gender Study (GGS) and Harmonized Histories datasets. Our outcome is the dissolution of first childbearing unions, which is more suitable than divorce as a measure of family instability given the high cohabitation rates in the countries we analyze.

5.2 Theoretical Background

Why do divorce risks vary by parental education?

Theorizing of why parental education would matter for their children's union dissolution has been sparse. The existing explanations for the association between parental education and union dissolution can be grouped into those underlining socio-economic and family demographic pathways, and into those theorizing the remaining net association between parental education and union dissolution (e.g. Lyngstad, 2006; Todesco, 2013).

First, parents' education can affect their offspring's family dissolution risks because of the intergenerational transmission of educational attainment. The persistent positive association between parental and offspring's education is among the most consistent findings in the social sciences (Breen & Jonsson, 2005), but whether higher parental education promotes family stability or not through this pathway depends on the relationship between own educational attainment and family dissolution. Higher levels of education were in many countries related to elevated family dissolution risks just a couple of decades ago, but this

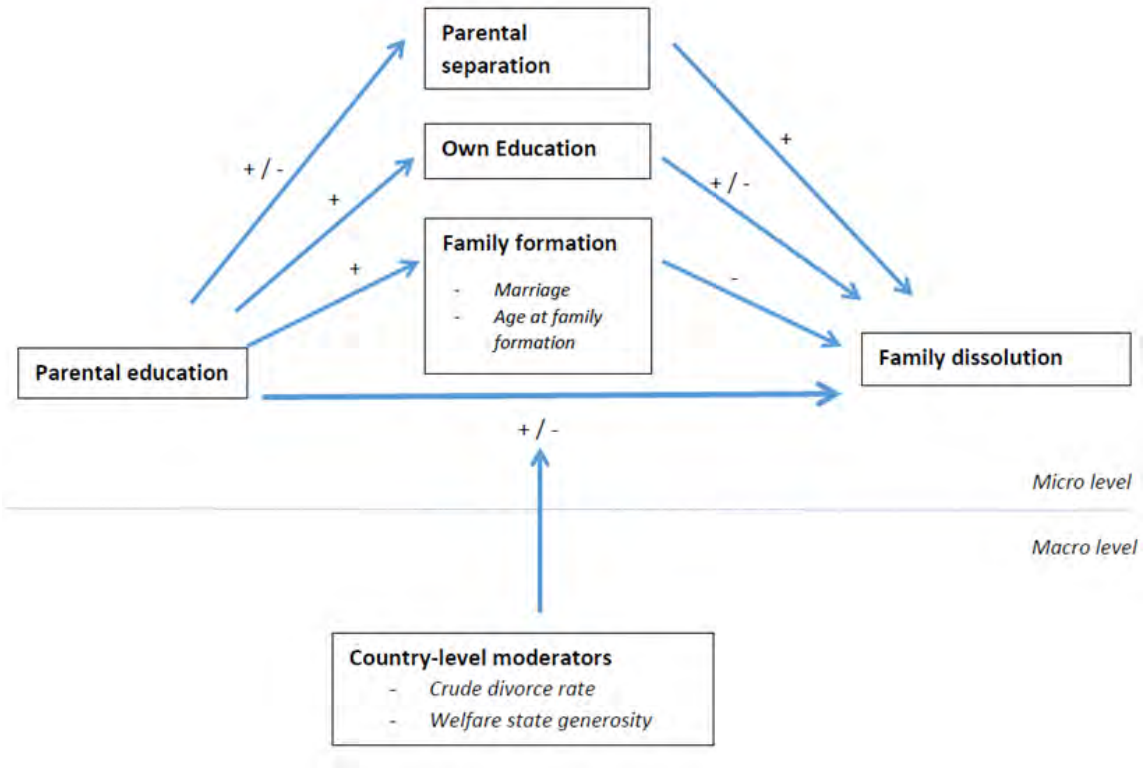
relationship has today largely disappeared or reversed to a negative one (Goode, 1962; Härkönen & Dronkers, 2006; Matysiak et al., 2014): as family dissolution became more common, it is the lower educated, rather than the higher educated, who experience the highest family dissolution risks. Thus, the role of intergenerational educational transmission in shaping the association between parental education and family dissolution is contingent on the educational gradient of family dissolution that prevails in each society and time period.

Second, parental education can affect the risk of family dissolution through family demographic pathways. Parental separation is a well-known predictor of individuals' own union dissolution and this relationship is found in a range of countries (Dronkers & Härkönen, 2008; Wolfinger, 2003). If education was associated with separation risk in the parental generation, then parental separation can be one of the pathways linking parental education to family dissolution. Again, because the educational gradient of separation and divorce varies cross-nationally and over time, the association between parental education and parental separation can vary as well. Parental separation can thus increase the family dissolution risk among those with highly educated parents or with low educated parents, depending on the association between education and separation in the parental generation.

Parental education is associated with two features of the family formation process that are important predictors of family dissolution, namely the age at family formation, and marriage (e.g. Lyngstad & Jalovaara 2010). On average, children of higher-SES parents form co-residential unions and have children at a later age (e.g. Axinn & Thornton, 1992; Rijken & Liefbroer, 2009; Wiik, 2009), even when their own educational level has been taken into account (Brons, Liefbroer & Ganzeboom, forthcoming; Dahlberg, 2015). Later age at family formation is one of the most robust predictors of family stability (Lyngstad & Jalovaara, 2010).

Many studies (e.g. Axinn & Thornton, 1992; South, 2001) have also found that higher parental SES predicts postponement of marriage. However, although those with higher-SES parents may marry later, it is less clear whether they are less likely to be married at the time they have children in a co-residential relationship, which are the unions we consider in this study. On the one hand, those with higher-SES parents have been argued to be less traditional (e.g. Lesthaeghe, 1995). On the other hand, marriage is less reversible than cohabitation, even when children are involved, and higher educated parents and their children generally have a higher stake in the former than in the latter (Wiik, 2009). Furthermore, those from more advantaged backgrounds can be more likely to be married due to their longer partner search

Figure 5.1. Hypothesized pathways from parental education to family dissolution.



and later age at family formation. Recent findings suggest that the association between parental education and the partnership context at entry into parenthood is, too, societally contingent and low parental education predicts childbearing within cohabitation more strongly in North America and Eastern Europe than in West Europe (Koops, Liefbroer, & Gauthier, 2017).

Figure 5.1 summarizes the expected pathways from parents' education to offspring's family dissolution. Although some studies found that the association between parental SES and family dissolution disappears once observed socio-economic and demographic factors had been controlled for (Kiernan, 1986; Bumpass et al., 1991; Bracher et al., 1993; Berrington & Diamond, 1999), several studies have reported a remaining, positive, relationship (e.g. Hoem & Hoem, 1992; Klijzing, 1992; Janssen, 2001; Lyngstad, 2004; 2006; Todesco, 2013).

This net association has been theorized as reflecting unmeasured class-related socio-cultural factors or financial support from the parents. Hoem and Hoem (1992) speculated that the higher divorce risk of Swedish women from higher-class backgrounds reflects these women's and their parents' embrace of a *'bourgeois culture'*, which is more accepting of divorce (also, Lyngstad, 2004; 2006). Rijken and Liefbroer (2012) found that education is

positively related to approval of divorce among Europeans. Yet higher parental education can also relate to socio-cultural factors that stabilize families. In the United States, education has over time become negatively associated with the approval of divorce, which can reflect socio-economically diverging benefits to stable marriages (Martin & Parashar, 2006). It is also possible that educated parents are more knowledgeable about the (negative) consequences of family dissolution. Although the available evidence is not straightforward (cf. Amato, 1996), the literature on own education and divorce has furthermore argued that educated couples have better interpersonal skills (Blossfeld et al., 1995; Härkönen & Dronkers, 2006) and educated parents can pass these skills on to their children.

Better-educated parents are in a better situation to financially support their adult children (Lyngstad, 2006; Todesco, 2013). The potential for receiving financial support may lower the threshold for family dissolution by lowering its perceived costs, but parental financial support can alternatively stabilize families faced with economic difficulties (Lyngstad, 2006). Higher socio-economic background and the economic security it provides while growing up is also related to better mental and physical health (Elo, 2009), which can lower the likelihood of family dissolution (cf. Lyngstad & Jalovaara, 2010). All in all, even though previous studies have found no or a positive net association between parental education and family dissolution, there are reasons to expect that the association can—at least in some contexts—be negative as well.

Cross-national and cohort variation

The above discussion has repeatedly suggested that the relationship between parental education and family dissolution is not necessarily constant over time or across societies. Below, we systematize this discussion.

Above, we pointed to the cross-national and cohort variation in the educational gradient of separation and divorce. This can produce variation in the association between parental education and family dissolution through two pathways. First, variation in the educational gradient of family dissolution in the parental generation means variation in the association between parental education and parental separation. Second, educated parents tend to have educated children. Whether this means that the children of educated parents also have more stable families will vary across societies, depending on the association between own education and family dissolution.

The association between parental education and family dissolution can vary cross-nationally and over time also because of variation in the relationship between parental education and family formation. According to the Second Demographic Transition theory (e.g. Lesthaeghe, 1995; 2010), non-traditional family forms, such as childbearing within cohabitation, started in the advantaged sections of society, from where it gradually spread to other social groups. However, empirical findings show that the socio-economic patterns of these changes show important cross-national variation and these patterns continue to differ between societies (Koops et al., 2017). Similar cross-national variation can be found in the link between parental SES and the timing of co-residential unions (Brons et al., forthcoming).

This leads us to two hypotheses. First, we expect that *the gross association between parental education and family dissolution varies cross-nationally, and that this variation diminishes after we control for parental separation, educational attainment, and age and marriage at family formation (Hypothesis 1)*. Our second hypothesis is more specific and builds on the documented change in the educational gradient of family dissolution (e.g. Härkönen & Dronkers, 2006). We expect that *the gross association between parental education and family dissolution has changed from a positive to a negative one because of a changing educational gradient in family dissolution (Hypothesis 2).* Note that this change is possible due to changes in the divorce gradient either in the parental or in the filial generations.

We also expect that the net association has changed from a positive to a negative one. Also, this expectation builds on the literature on the changing relationship between individuals' own education and divorce. Goode (1962) theorized that divorce was the privilege of the privileged in societies where divorcing was difficult and required resources for dealing with its legal and social consequences, but as divorcing became easier and more common it became accessible to the lower socio-economic strata as well. If the perceived benefits of stable family life have diverged, those with higher education may have developed more restrictive attitudes toward it (Martin & Parashar, 2006). These mechanisms can extend beyond the association between achieved status (own education) and family dissolution to that between ascribed status (parental education) and family dissolution (cf. Todesco, 2013). Moreover, traits that stabilize families may have become more important in high-divorce contexts and to the extent that parental education promotes such traits, it will increasingly promote family stability. Therefore, we expect that *the net association between parental*

education and family dissolution has changed from a positive to a negative one (Hypothesis 3).

The above discussion suggested that the net association between parental education and family dissolution is different in societies with a high compared to a low divorce rate. The related empirical literature on own education and divorce has similarly reported that the educational gradient of divorce tends to be (more) negative in times and societies in which it is more common to divorce (Härkönen & Dronkers, 2006; Matysiak et al., 2013). Our theorizing of the net association between parental education and family dissolution suggested similar patterns, and we thus expect that *the net association between parental education and family dissolution is positive in societies with low divorce rates, but nil or even negative in societies with high divorce rates (Hypothesis 4)*.

Last, we have discussed how the net association between parental education and family dissolution can reflect differences in financial conditions and economic support from the parents, although whether this would (de)stabilize families is not obvious. Parents' financial resources can lower the threshold of family dissolution by providing (the promise of) means to deal with its consequences. On the other hand, these means can stabilize families by lowering financial stress, or foster traits during childhood that enhance family stability. Either way, parental financial resources should play a smaller role in welfare states that are more generous. Härkönen and Dronkers (2006) found that the educational gradient of divorce was less negative in such contexts. We hypothesize that *the net association between parental education and family dissolution is weaker in countries with a generous welfare state (Hypothesis 5)*.

5.3 Data & Methods

Data

We use data from 17 European countries. Data for 16 countries come from the first wave of the Generations and Gender Study (GGS). The data were collected in different years in the different countries, between 2002 and 2013 (Fokkema et al. 2016). We chose the countries for which sufficiently detailed information was available on the partnership history, parental and individual educational attainment, and parental separation namely: Austria, Belgium,

Bulgaria, Czech Republic, Estonia, France, Georgia, Hungary, Italy, Lithuania, Netherlands, Norway, Poland, Romania, Russia, and Sweden. For the United Kingdom, we use the Harmonized Histories (HH) dataset created by the Non-Marital Childbearing network and made publicly available to the Gender and Generations Programme research community (see Perelli-Harris, Kreyenfeld, & Kubisch (2010) for information). HH consists of data from the British Household Panel Survey, collected in 2005 and 2006 and made comparable to GGS. Missing or inconsistent data led us to exclude some interesting countries. The US data in HH does not have information on parental separation, and this variable is not correct in the German GGS. The Australian GGS does not include information on unmarried cohabiting couples.

We excluded the oldest childbearing union cohorts, which started before 1970, because our country-level indicators (discussed below) are not representative for them (available from the 1970s onwards). Moreover, we excluded all respondents without children, because we focus on dissolution of childbearing unions, which resulted in a sample of 92,862 respondents. Furthermore, we excluded respondents with missing information on at least one of the independent variables, leading to our analytical sample of 84,045 men and women in 17 countries who had their first child within a co-residential union after 1970. The overall percentage of respondents with missing variables was 9.5%, ranging from 2% in Italy to 22% in Russia. Parental and own education and parental separation were the variables with most missing information. As a robustness check, we performed our analyses with multiple imputed data and found that the results were almost identical to the ones with our analytical sample.

Dependent variable

Our dependent variable is family dissolution, defined as the dissolution of one's first childbearing union (irrespective of marital status). Most previous studies have focused on divorce, but because of the increase in cohabitation as a stable family form (Heuveline & Timberlake, 2003; Andersson, Thomson, & Duntava, 2017), focusing on divorce is too restrictive especially in light of the cross-national and cohort coverage of our data. Childbearing unions, that is, co-residential unions involving a common child, are a more comparable family type as they can in all European countries be seen as a stable and serious relationship form.

15,774 (19%) of the 84,045 respondents in our analytical sample dissolved their childbearing union within the observation window. We converted the data into a person-year format for discrete-time event-history analyses (Allison, 1984), which we chose because of the ease of handling time-varying covariates (in our case, individuals' own educational attainment). The results are robust to using months as the units of analysis, or Cox regression as the method. The respondents become at risk of family dissolution when their first child was born within a co-residential union, irrespective of marital status. They were followed until the year of the separation, until the year of the interview, or up to a maximum of 20 years.

Independent variables

Our main independent variable is *parental education*. The highest level of education of both parents is available for all 17 countries, which we converted into a comparative measure of educational level, the International Standard Level of Education [ISLED] (Schröder & Ganzeboom, 2014). Its advantage over the International Standard Classification of Education [ISCED] is that the ISLED is more fine-grained, is sensitive to differences in educational systems between countries, and allows for continuous scaling (range 0-100). We use the average score of fathers' and mothers' education, because we are interested in the overall effect of parental education rather than whether fathers or mothers are more influential. This average score was standardized to a Z-metric (mean = 0, SD=1) within each country. The results were robust to using the highest parental level of education instead of the average one.

Parental separation is measured by a dummy variable, which is unity if the parents ever separated and zero if not. Time-varying information on the respondents' *highest level of completed education* was also converted into ISLED and expressed in a Z-standardized metric within each country. The last two mediating variables are the *age at the start of the childbearing union* that ranges from age 15 to age 60, and a dummy variable indicating whether the respondent was *married* at the beginning of the union. We control for *gender* in each model.

Union duration was expressed as linear and squared years since the beginning of the union. The year in which the childbearing union started *(union cohort)* was used to construct a continuous cohort variable (cohorts ranged between 1970 and 2013). The country-specific descriptives of all independent variables and of the dependent variable can be found in Table 5.1.

Country-level indicators

We use country-level measures of the crude divorce rate and welfare state generosity, which we use to assess whether the association between parental education and family dissolution is modified by these country-level characteristics (Hypotheses 4 and 5). In both cases, we constructed separate measures for an old cohort (start of childbearing union before 1988) and a young one (1988 or later) to account for changes in the divorce rate and welfare states. The cutoff point of 1988 divides the number of respondents evenly between the two cohorts and ensures a sufficient number of respondents as well as non-missing values for the macro-level variables for each country-cohort.

The average *crude divorce rate per country* for the older cohort is the average of crude divorce rates from the years 1970 and 1985, derived from World Marriage Data 2008 (United Nations, 2009). The average divorce rate for the youngest cohort is based on the country-specific crude divorce rates for 1995 and 2005 derived from World Marriage Data 2008 (United Nations, 2009) and for the year 2011 derived from the United Nations Demographic Yearbook (2013). Although not a perfect measure of family instability, the crude divorce rate is a readily available aggregate measure which correlates highly with more appropriate ones (Amato, 2010). It thus serves as a proxy for costs and availability of family dissolution.

To test whether *welfare state generosity* modifies the cross-national variation in the net association between parental education and family dissolution (Hypothesis 5), we calculated for each country-cohort the average social security transfers as share of GDP, derived from the Comparative Political Data Set (Armingeon et al., 2016). Unfortunately, there was no data available for Russia and Georgia, and only for half of the countries for the old cohort. Because of this, the analysis using welfare state generosity is based on a more restricted sample of 23 country-cohorts. The descriptives of these macro-level indicators can also be found in Table 5.1.

Analytical strategy

Our analysis proceeds in three steps. First, we estimate discrete-time event history regressions separately for each country. We estimate two models. The baseline model estimates the gross association between parental education and family dissolution, controlling for gender, duration (linear and squared), and year of birth. The second model estimates the net association between parental education and family dissolution after adding the mediators

Table 5.1. Descriptive statistics for the dependent and independent variables, separately for each country.

	N	% disso-lution	% women	Mean union yr	Mean duration	Mean parental education (ISLED: 0 – 100)	% experienced parental separation	Mean own education (ISLED: 0 – 100)	Mean age childbearing union	% Married when union started	Average crude Divorce rate (1)[a]	Average crude Divorce rate (2)[b]	Welfare generosity (1)[a] (social transfers as % of GDP)	Welfare generosity (2)[b] (social transfers as % of GDP
All	**84045**	**18.77%**	**56.58%**	**1987.72**	**13.07**	**37.92**	**12.77%**	**54.24**	**26.07**	**89.58%**	**1.84**	**2.31**	**15.04**	**13.91**
Austria	2493	18.53%	66.23%	1997.59	8.95	50.13	18.69%	64.38	26.32	80.67%	1.72	2.25	16.51	18.68
Belgium	3361	19.90%	53.91%	1989.94	12.99	40.66	12.14%	56.67	27.52	87.86%	1.27	2.97	16.06	15.72
Bulgaria	6028	9.74%	59.92%	1987.50	13.27	35.01	8.68%	47.60	24.02	91.49%	1.39	1.52	-	10.51
Czech Rep.	3760	24.15%	55.13%	1986.44	13.03	45.87	14.76%	53.07	25.11	94.47%	2.57	2.92	-	12.15
Estonia	3675	29.82%	63.48%	1985.67	12.39	41.12	21.88%	55.52	24.61	83.10%	3.58	3.50	-	10.00
France	4296	22.81%	55.59%	1987.61	12.26	32.35	13.64%	49.50	27.02	80.80%	1.37	2.22	16.03	17.58
Georgia	4866	8.28%	60.30%	1987.26	14.47	43.46	4.01%	54.65	25.15	86.56%	1.12	0.75	-	-
Hungary	5883	20.26%	56.33%	1985.17	13.45	37.39	12.68%	50.96	24.85	94.63%	2.48	2.40	-	14.16
Italy	4661	8.77%	53.12%	1986.15	13.49	22.72	2.27%	43.92	28.46	98.28%	0.30	0.73	14.40	16.53
Lithuania	4132	19.97%	50.19%	1987.62	13.39	38.25	11.16%	55.75	25.62	96.42%	2.72	3.13	-	10.92
Netherlands	3731	19.46%	60.44%	1987.17	11.81	38.62	10.10%	56.47	28.62	90.83%	1.57	2.06	17.02	12.88
Norway	7397	22.77%	51.82%	1988.29	12.73	34.85	13.46%	57.61	27.21	80.21%	1.43	2.29	12.64	14.22
Poland	10490	14.60%	58.14%	1988.29	14.43	38.85	7.43%	57.87	25.47	96.42%	1.19	1.49	-	15.58
Romania	5882	11.14%	50.39%	1985.95	14.46	28.87	18.04%	44.52	25.40	96.43%	0.91	1.59	-	10.03
Russia	4679	28.87%	63.11%	1985.97	12.26	41.88	17.74%	60.97	24.10	93.14%	3.53	4.47	-	-
Sweden	4969	25.84%	52.81%	1990.86	12.78	44.08	22.78%	59.09	28.36	73.90%	1.98	2.42	15.99	16.54
United Kingdom	3742	27.02%	57.70%	1988.24	11.30	43.23	19.00%	58.43	27.26	86.91%	2.10	2.53	11.62	13.14

Notes: a. average for the oldest union cohort (1970- 1987)

b. average for the youngest union cohort (1988-2013)

parental separation, individuals' own educational attainment, the age at the start of the childbearing union, and whether the couple was married at the beginning of the union. In additional analyses, commented in the text and presented in the Appendix, we entered these mediators stepwise (first, the parental separation, then educational attainment and finally, the family formation variables). The results were almost identical to those estimated with the Karlson-Holm-Breen (KHB, Karlson, Holm, & Breen, 2012) method, which is immune to the rescaling bias in logistic regression models, so we present the more familiar odds ratios from the discrete-time event history models. The results were also robust when we analyzed multiple imputed data, as already mentioned above.

We summarize the cross-national variation in these estimates by using tools generally employed in meta-analyses. We did this because of the small number of countries in our study ($N < 30$), which restricts the use of multilevel models (Bryan & Jenkins, 2016). Using the estimated odds ratios and their confidence intervals as input, we estimate the between-country heterogeneity coefficient I^2, which is the percentage of observed total variation across countries due to real heterogeneity rather than chance. I^2 is calculated as 100%*(Q-df)/Q, where Q is Cochran's heterogeneity statistic and *df* stands for degrees of freedom (Harris et al., 2008). I^2 ranges between 0% and 100%. Estimates above 50% can be interpreted as indicating "substantial" cross-national variation and estimates above 75% indicate "considerable" cross-national variation (cf. Higgins, Thompson, Deeks & Altman, 2003). I^2 for the estimates from the first model tells about cross-national variation in the gross association between parental education and family dissolution risk, and I^2 for the second model tells about the cross-national variation in the net association. I^2 was estimated using the **metan** command in Stata 14.

Second, we analyze whether the gross and net associations have changed over time. We estimate the baseline models with an interaction term between union cohort and parental education, separately for each country. We continue to analyze the countries in which the gross association has changed, selected using likelihood ratio tests. We first add the four mediating variables to assess whether these family demographic and socio-economic pathways explain any of the change in the association between parental education and family dissolution. Then, we add an interaction term between union cohort and own education to assess whether changes in the educational gradient of family dissolution explain changes in the parental educational gradient.

Third, we analyze whether the net associations—the estimates from the second discrete-time event history model—are systematically associated with our contextual variables. Again, due to our small number of countries, multilevel models would not be appropriate in particular for estimating of the cross-level interactions between the parental education and the time-varying country-level variables (Bryan & Jenkins, 2016). Using meta-analytic tools (meta-regressions) for cross-national data, the country-specific estimates of the net association of parental education and family dissolution are regressed separately on the contextual variables (Harbord & Higgins, 2008). Because the country-level indicators changed over time, we divided our sample into two groups (an old (before 1988) and young union cohort (1988 and later)) and regressed the available country-cohort specific estimates of the net effect of parental education on the macro-level indicators. The samples for the respective analyses are the 34 country-cohorts for which we had information on the crude divorce rate, and the 23 country-cohorts for which we had measures of welfare state generosity. The country-cohorts are weighted by the inverse of the standard error so that those with more precise estimates have more influence. These models were estimated using the **robumeta** command in Stata 14, because with this command we could cluster estimates by country.

5.4 Results

Parental education & dissolution in 17 countries

Figure 5.2 shows the gross associations between parental education on union dissolution (the baseline model) and Figure 5.3 shows the net associations (thus, after adjusting for the mediating variables), respectively, for each country. The figures present the point estimates and the 95% confidence intervals for the odds ratios. The diamond at the bottom of the figures presents the average estimate for the 17 countries, inversely weighted by their standard errors to take into account the precision of the estimates. The I^2 provides an estimate of the cross-country heterogeneity in the associations.

The countries are ordered by the ascending gross association. In the United Kingdom, having highly educated parents was associated with a lower risk of family dissolution (Figure 5.2). The association was not statistically significant in six countries (France, Norway, Estonia, the Czech Republic, Sweden, and Belgium), and positive in the remaining 10 countries. In these

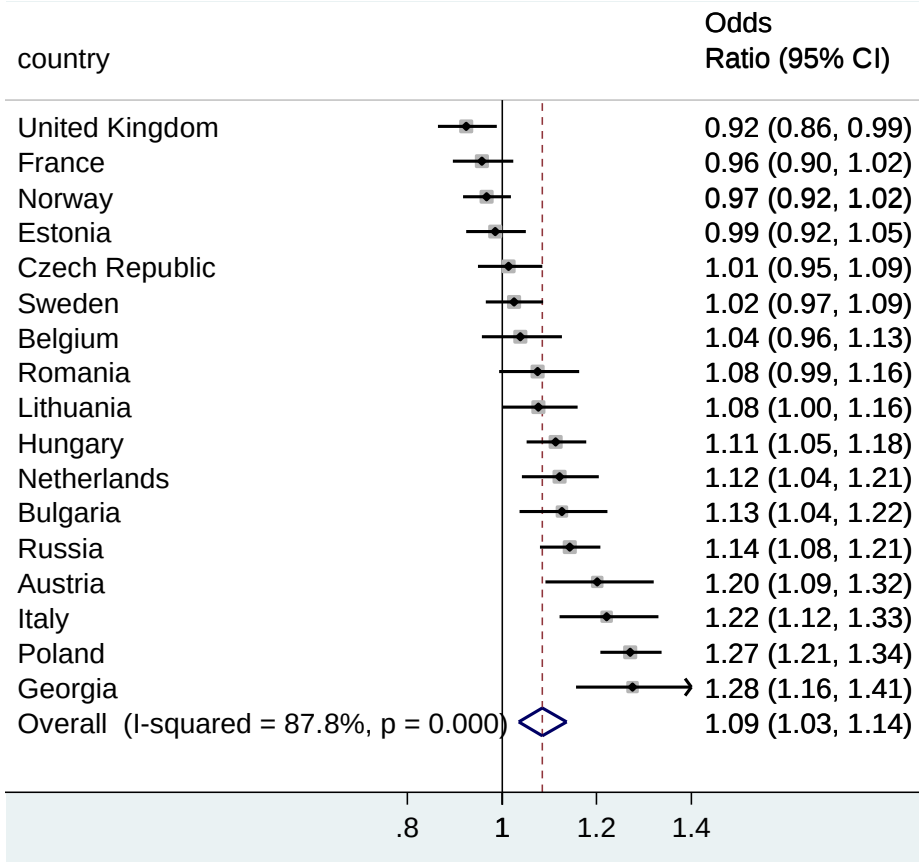
countries, having highly educated parents was associated with a higher risk of family dissolution. The positive association was the strongest in Italy, Poland and Georgia. The overall effect was likewise positive (odds ratio = 1.09), but the I^2 estimate of 87.8% confirmed the considerable cross-country variation in these associations.

Figure 5.3 presents the net associations between parental education and family dissolution risk. The stepwise models are found in the Appendix (Figure A5.1 and A5.2). Figure 5.3 shows that the overall association between parental education and family dissolution became marginally more positive after including parental separation, individuals' own education, and age and marriage at the start of the childbearing union as mediators (odds ratio = 1.12). The cross-national heterogeneity decreased somewhat (I^2 = 74.3%), although it can still be interpreted as being considerable.

With the clearest exception of Italy, the estimates moved towards more positive ones in each country. This result was confirmed with the KHB-method, which is not sensitive to rescaling unlike non-linear methods. After adjusting for the mediating variables, no negative and statistically significant associations remained. The associations were not statistically significant in the United Kingdom, France, Estonia, and Belgium, and positive and significant in all the other countries. The shift toward more positive associations was the clearest in Norway and Czech Republic, where the associations change from no association to a positive one.

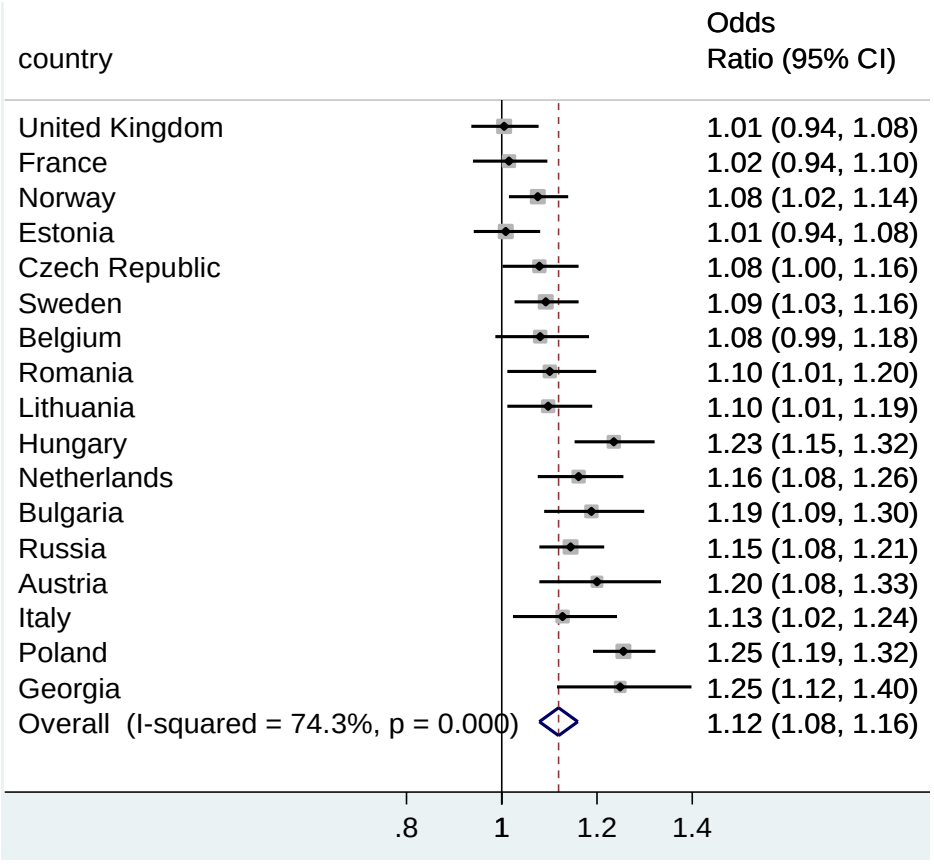
The difference between the gross and net effects generally imply that higher parental education was in many countries associated with pathways that promote family stability, which also suppressed the mostly positive net association between parental education and family dissolution. The stepwise analyses, shown in the Appendix, pointed to own educational attainment and family formation as such important pathways. Regarding the former, highly educated parents tend to have highly educated children, who in many of the countries were less likely to experience family dissolution. This pattern was the opposite in Italy, where own education was positively associated with family dissolution. Children of highly educated parents were also often older and/or more likely to be married at the beginning of their childbearing union, which stabilizes their families.

Figure 5.2. The *gross* association between parental education and family dissolution. Meta-analysis with discrete-time event-history models (odds ratios and 95% confidence intervals are presented).



Note: Controlled for gender, year childbearing union started, duration, duration squared.

Figure 5.3. The *net* association between parental education and family dissolution. Meta-analysis with discrete-time event-history models (odds ratios and 95% confidence intervals are presented).



Note: Controlled for gender, year childbearing union started, duration, duration squared, parental separation, own education, age at family formation, and married at family formation.

Did the parental educational gradient change?

We hypothesized that the gross as well as the net associations between parental education and family dissolution have changed from positive to negative (Hypothesis 2 and 3). To test these hypotheses, we first ran interaction models separately for each country, interacting parental education with the year in which the childbearing union started (union cohort), with controls for gender, duration, and duration squared. This model tested whether there has been a shift in the gross association between parental education and family dissolution.

This interaction model improved the model fit at the 5% level of significance (assessed by likelihood ratio tests) in five countries (Belgium, Bulgaria, Norway, Sweden, and the United Kingdom). In addition, the interaction was significant in Austria once we controlled for the mediating variables (Model 2 below). These findings imply that gross or net (or both) association between parental education and family dissolution has changed over time in these six countries, which we focus more closely on below.

Table 5.2 presents results from three models. The union cohorts are centered at the mean union cohort for each country and the estimate for parental education tells that the gross association between parental education and family dissolution risk was, in those cohorts, positive in Austria and Bulgaria, zero in Belgium, Norway and Sweden, and negative in the UK. The interaction coefficient tells that the association became (more) negative over time in all countries but Austria, where the coefficient was not significant. Furthermore, predictions based on the model showed that the gross association switched from positive to negative in Belgium, Bulgaria, Norway, and Sweden during the observation window, and a negative association opened up in the UK (not shown).

The second model added controls for parental separation, own education, age at family formation, and marriage at family formation. Having separated parents increased the family dissolution risk, whereas being older and married at the beginning of the childbearing union had stabilizing effects. Own education was negatively associated with family dissolution risk in Norway, Sweden and United Kingdom, but there was no association in the other three countries. More importantly for this study, the interaction effect between union cohort and parental education remained almost unchanged in Belgium, Sweden and United Kingdom, but became smaller in Bulgaria and Norway, and maybe surprisingly, larger and significant in Austria.

The third model includes the interaction between own education and union cohort. Model 3 shows that in all countries, there still remained a significant change in the association between

Table 5.2. Discrete-time event history analysis of cohort change in the association between parental education and family dissolution. Odds ratios and standard errors are presented.

		Model 1	Model 2	Model 3
Austria	Parental education	1.144 (.064)*	1.112 (.066)	1.109 (.068)
N = 2,493	Year union started	0.983 (.009)*	0.980 (.010)	0.981 (.010)
	ParEdu*Union yr.	**0.986 (.008)**	**0.977 (.008)****	**0.976 (.009)****
	Parental separation		1.682 (.183)**	1.683 (.183)**
	Own education		0.969 (.045)	0.977 (.068)
	Age at family formation		0.950 (.013)**	0.950 (.013)**
	Married		0.212 (.023)**	0.212 (.023)**
	Own edu*Union yr.			1.001 (.006)
	LR chi2 (df)	36.46 (6)	293.37 (10)	293.39 (11)
Belgium	Parental education	1.021 (.042)	1.061 (.049)	1.059 (.049)
N = 3,361	Year union started	1.020 (.005)**	1.017 (.005)**	1.017 (.005)**
	ParEdu*Union yr.	**0.988 (.004)****	**0.987 (.004)****	**0.988 (.004)****
	Parental separation		1.448 (.164)**	1.450 (.164)**
	Own education		0.965 (.041)	0.968 (.039)
	Age at family formation		0.950 (.010)**	0.950 (.009)**
	Married		0.401 (.051)**	0.401 (.051)**
	Own edu*Union yr.			0.998 (.003)
	LR chi2 (df)	65.81 (6)	162.80 (10)	163.04 (11)
Bulgaria	Parental education	1.098 (.047)*	1.163 (.054)**	1.160 (.054)**
N = 6,028	Year union started	1.011 (.006)	1.001 (.006)	1.001 (.006)
	ParEdu*Union yr.	**0.985 (.005)****	**0.988 (.005)***	**0.987 (.005)***
	Parental separation		1.808 (.226)**	1.814 (.227)**
	Own education		0.981 (.039)	0.988 (.043)
	Age at family formation		0.988 (.010)	0.988 (.010)
	Married		0.439 (.064)**	0.436 (.064)**
	Own edu*Union yr.			1.002 (.004)
	LR chi2 (df)	41.94 (6)	98.77 (10)	99.01 (11)

Norway	Parental education	0.952 (.026)	1.058 (.032)	1.061 (.032)*
N = 7,397	Year union started	1.013 (.003)**	0.992 (.003)*	0.992 (.003)*
	ParEdu*Union yr.	**0.989 (.003)****	**0.991 (.003)****	**0.993 (.003)***
	Parental separation		1.517 (.102)**	1.515 (.102)**
	Own education		0.914 (.025)**	0.907 (.026)**
	Age at family formation		0.953 (.006)**	0.953 (.006)**
	Married		0.234 (.015)**	0.235 (.015)**
	Own edu*Union yr.			0.997 (.003)
	LR chi2 (df)	62.41 (6)	747.07 (10)	748.29 (11)
Sweden	Parental education	0.998 (.031)	1.065 (.034)*	1.069 (.034)*
N = 4,969	Year union started	1.003 (.003)	0.996 (.003)	0.995 (.003)
	ParEdu*Union yr.	**0.987 (.003)****	**0.987 (.003)****	**0.989 (.003)****
	Parental separation		1.543 (.100)**	1.550 (.101)**
	Own education		0.943 (.029)	0.896 (.027)**
	Age at family formation		0.938 (.006)**	0.939 (.027)**
	Married		0.276 (.017)**	0.276 (.017)**
	Own edu*Union yr.			0.992 (.002)**
	LR chi2 (df)	48.75 (6)	661.37 (10)	673.31 (11)
United	Parental education	0.909 (.032)**	0.989 (.036)	0.989 (.036)
Kingdom	Year union started	1.025 (.004)**	1.019 (.004)**	1.019 (.004)**
N = 3,742	**ParEdu*Union yr.**	**0.992 (.004)***	**0.993 (.004)***	**0.993 (.004)#**
	Parental separation		1.211 (.095)*	1.211 (.095)*
	Own education		0.884 (.031)**	0.885 (.038)**
	Age at family formation		0.929 (.007)**	0.929 (.007)**
	Married		0.322 (.032)**	0.322 (.032)**
	Own edu*Union yr.			1.000 (.004)
	LR chi2 (df)	111.74 (6)	455.84 (10)	455.85 (11)

Notes: ** p < .01, * p < .05. All models are additionally controlled for gender, duration, and duration squared.

parental education and family dissolution, also after including the changing educational gradient of family dissolution in the children's generation. The interaction between own education and union cohort was significant and negative only in Sweden. In Sweden, the interaction between parental education and birth cohort became smaller, but remained significant. Thus, in Sweden, the increasingly negative educational gradient of family dissolution in the children's generation has been partly responsible for the changing association between parental education and family dissolution.

Variation by divorce rate and welfare state generosity

Figures 5.4 and 5.5 present the results of the analysis of the moderating role of the crude divorce rate and welfare state generosity on the net association of parental education and family dissolution. To account for changes in the net association as well as the crude divorce rate and welfare state generosity, we divided our sample in an old and young cohort. The net association within each country-cohort was regressed on these country-level indicators.

We expected to find a negative association between the average crude divorce rate and the parental education gradient of family dissolution (Hypothesis 4). Figure 5.4 indeed shows that the net association between parental education and family dissolution risk tended to be clearly positive in country-cohorts where the average divorce rate was low, but weak in country-cohorts where the average divorce rate was high. Despite the negative slope (b = -0.029), the association was not statistically significant. When we excluded the younger Russian cohort as an influential outlier—identified as such by its crude divorce rate that was over 1.5 times inter-quartile range after the third quartile (Tukey, 1977)—the association became stronger and statistically significant (b = -0.053, p = .03, see Figure A5.3 in Appendix). Thus, there was some evidence of a negative association between the divorce rate and the net association.

We also expected that the net association between parental education and family dissolution is stronger in countries with a less generous welfare state than in countries with a more generous welfare state (Hypothesis 5). Figure 5.5 shows no clear pattern between the net association of parental education on family dissolution and welfare state generosity (b = 0.010, p = n.s.). Unlike in Figure 5.4, there were no influential outliers that affected the results.

Figure 5.4. The association between the net effect of parental education on union dissolution, and the average crude divorce rate. *b* = -0.029; *p* = .283.

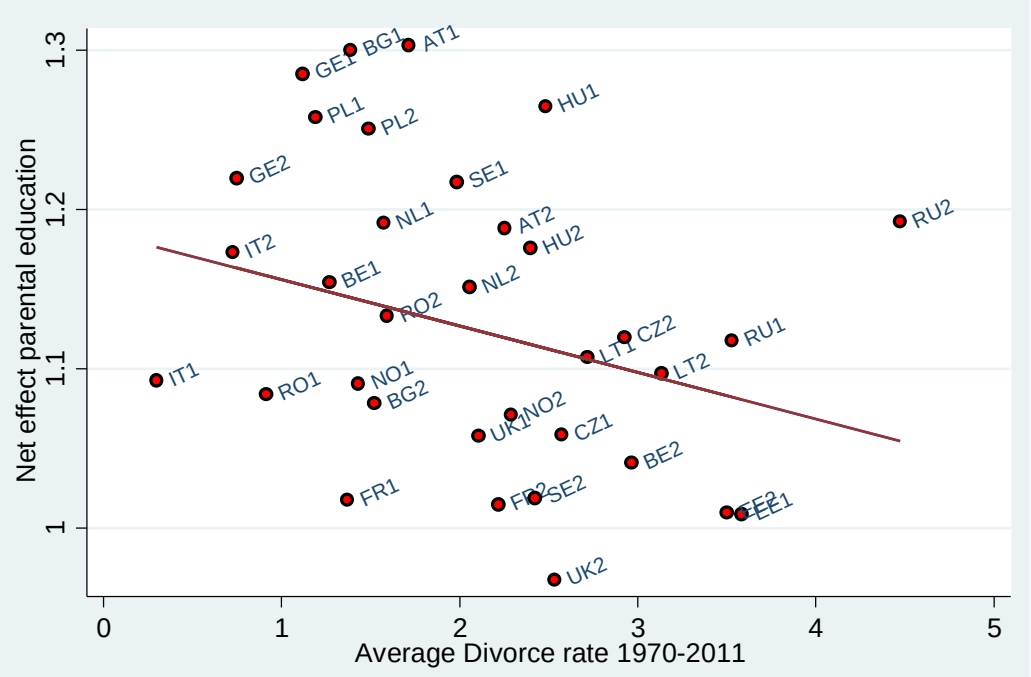
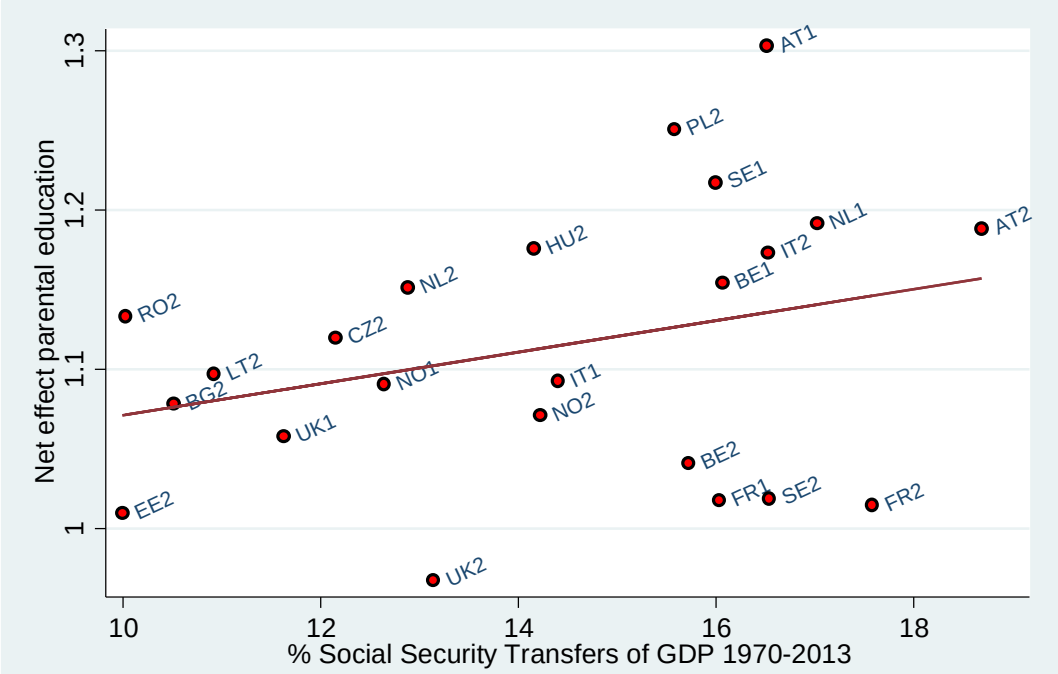


Figure 5.5. The association between the net effect of parental education on union dissolution, and average social security transfers (as % of GDP). *b* = 0.010; *p* = .245.



Notes: Social Security Transfer data not available for Russia and Georgia.
1 = old union cohort (1970 – 1987), 2 = young union cohort (1988 – 2013)

5.5 Conclusions & Discussion

We analyzed the association between parental education and family dissolution in 17 European countries. The scholarly attention to educational differences in family demography and to family background effects on life chances has not translated to similar interest in parental education and family stability, and our study is the first cross-national analysis on this subject. Documenting the parental background differences in family stability contributes to a more comprehensive understanding of stratification in family demography, and analysis of its cross-national differences adds to the understanding of the societal factors associated with this stratification.

In most countries, having highly educated parents is either not related to the risk of family dissolution, or it predicts a higher dissolution risk. This was true (with one exception, the UK) for the gross association, and the view of a positive association was reinforced once adjusting for parental separation, own educational attainment, and age and marital status at family formation. Our findings of a generally positive association are mostly in line with earlier ones (cf. Lyngstad & Jalovaara, 2010), but systematize these results by being the first cross-national analysis of parental educational differences in family dissolution.

Both the gross and the net associations between parental education and family dissolution showed considerable cross-national variation, even though the variation in the association diminished, as expected, once we adjusted for some important socio-economic and family demographic pathways (in support of our first hypothesis). However, partly contrasting our second and third hypotheses, we found general stability in the gross and net associations. The gross association had changed (toward more negative) in 5 of the 17 countries, and the net association showed similar change in 6 out of the 17 countries. In general, the change in the association between parental education and family dissolution in these countries could not be explained by socio-demographic factors, or by the changing association of own education and family dissolution. In the remaining 11 countries, the parental educational gradient of separation has remained stable. In addition to differences in sample sizes and the cohorts covered, the countries where gross or the net association changed can have been more advanced in the Second Demographic Transition (United

Kingdom, Norway, and Sweden as the best examples), but strong conclusions are difficult to draw.

In order to better understand the variation across countries and over time, we divided the data into an old and a young cohort in each country and used techniques familiar from meta-analysis to regress the net association between parental education and family dissolution in these country-cohorts on the crude divorce rate and on welfare state generosity. We hypothesized that the net association should be positive in country-cohorts with a lower divorce rate (Hypothesis 4), and in country-cohorts with a less generous welfare state (Hypothesis 5), but nil or even negative in when the divorce rate is higher and the welfare state more generous. We found suggestive evidence for the fourth hypothesis, which was stronger after excluding Russia as an influential case from the analysis. Although similar to other Eastern European countries with regard to many features of the Second Demographic Transition (Lesthaeghe, 2010), Russia has a higher divorce rate that set it as an outlier in the analysis. Possible reasons range from a high prevalence of unintended pregnancies and subsequent "shot gun" marriages (Zakharov, 2008) to the social turmoil that followed the decline and collapse of the Soviet Union. In contrast to some support for the fourth hypothesis, we did not find that the generosity of the welfare state modified the net association between parental education and family dissolution. However, we have to keep in mind that the country-level measures are averages over long periods (around 20 years); although averaging reduces measurement error due to short-term fluctuations, our long-term averages can hide trends that shape the parental education – family dissolution relationship. We chose this conservative strategy in response to criticisms of the use of multilevel modeling—which can include cross-classified random effects of the country level and time—with a limited number of countries (Bryan & Jenkins, 2016). Nevertheless, it is possible that we may have erred on the conservative side in analyzing the country-level moderators.

Lacking direct measures, the cross-national analysis provides indirect evidence for the hypothesized mechanisms behind the net relationship between parental education and family dissolution. Despite a general lack of theorizing of this association, the suggested mechanisms can be grouped into socio-cultural ones that emphasize class differences in (the intergenerational transmission of) divorce-friendly values and outlooks, and into economic ones that underline the financial support better-educated parents can provide their children. Related to the latter, we expected that family dissolution would be more strongly associated

with parental education in less generous welfare states (our fifth hypothesis). This was not the case. Our suggestive finding that the net association was related to the crude divorce rate is more in line with the socio-cultural explanation. When divorcing means breaking social and legal norms, it requires social and cultural resources that often come with high (ascribed or attained) status, but these resources become less important when divorce is democratized (Goode, 1962). Previous research has found evidence for this interpretation regarding the educational gradient of divorce (Härkönen & Dronkers, 2006; Matysiak et al., 2013) and our study extended this to the association between parental education and family dissolution.

Research on the stratification of family dissolution has documented large variation in the relationship between own educational attainment and family dissolution over time and across countries (Härkönen & Dronkers, 2006; Martin, 2006; Matysiak et al., 2014). We found variation in the relationship between parental education and family dissolution as well, but this variation appears less dramatic than the one between own education and family dissolution. Although the size of the relationship between parental education and family dissolution varies considerably, it is generally positive—this is especially clear in the case of the net association—whereas the educational gradient of family dissolution has more clearly varied both in size and in sign (Blossfeld, de Rose, Hoem & Rohwer, 1995; Härkönen & Dronkers, 2006; Matysiak et al., 2014). Similarly, the educational gradient of family dissolution has changed in several countries, often from a positive to a negative one (Hoem, 1997; Chan & Halpin, 2008; De Graaf & Kalmijn, 2006; Härkönen & Dronkers, 2006; Raymo & Iwasawa, 2017), whereas our findings point primarily to stability in the relationship between parental education and family dissolution.

These results add nuance to perspectives on stratification in family dissolution, which is dominated by views of the increasingly lower status nature of family instability (e.g. McLanahan, 2004). Parental and individuals' own education are of course not the same, but our findings suggest that family dissolution is not generally and increasingly related to low social status regardless of the status measure. Instead, the generally positive association between parental education and family dissolution suggests first of all, that family background may ameliorate the inequality consequences of family instability. Second, our findings also show that high parental background not always lead to positive outcomes with regard to family demography and future life chances, given that the association between parental

education and family dissolution is positive and the dominantly negative consequences of family dissolution on adults and children.

This finding also raises intriguing questions about the impact of parental and own education on family dissolution because it is far from obvious to expect that parental and own education predict family dissolution in opposite ways, as seems to be the case in many countries (see also, Lyngstad, 2006; Lyngstad & Jalovaara, 2010). Future research should formulate additional hypotheses about why parental and own education can predict family dissolution in opposite ways. Future research should also assess whether our conclusion of relative stability in the association between parental education and family dissolution holds; it is possible that is has become mostly apparent in more recent cohorts and thus not discovered by our linear trend analysis over many cohorts, or that there has been change in countries we did not analyze. Understanding these questions would contribute to understanding stratification in family dissolution more broadly.

Family dissolution is socially stratified. Our analysis has contributed to understanding this stratification by showing how parental education predicts family dissolution in different countries and over time. A key lesson is that differences in family instability by ascribed status can be quite different from that by achieved status.

Addendum

References
Appendices Chapter 2
Appendices Chapter 3
Appendices Chapter 5
Nederlandse Samenvatting
Dankwoord
Curriculum Vitae

References

Aassve, A., Arpino, B. & Billari, F.C. (2013). Age norms on leaving home: Multilevel evidence from the European Social Survey, *Environment and Planning A*, 45, 383-401.

Albertini, M., & Garriga, A. (2011). The effect of divorce on parent–child contacts: Evidence on two declining effect hypotheses. *European Societies*, 13, 257-278.

Allison, P.D. (1984). *Event history analysis: Regression for longitudinal event data*. Beverly Hills: Sage Publications.

Amato, P.R. (1988). Parental divorce and attitudes toward marriage and family life. *Journal of Marriage and the Family*, 50, 453-462.

Amato, P.R. (1996). Explaining the intergenerational transmission of divorce. *Journal of Marriage and the Family*, 58, 628-640.

Amato, P.R. (2000). The consequences of divorce for adults and children. *Journal of Marriage and Family*, 62(4), 1269-1287.

Amato, P.R. (2010). Research on divorce: Continuing trends and new developments. *Journal of Marriage and Family*, 72(3), 650-666.

Amato, P.R., & DeBoer, D.D. (2001). The transmission of marital instability across generations: Relationship skills or commitment to marriage? *Journal of Marriage and the Family*, 63, 1038-1051.

Andersson, G., Thomson, E., & Duntava, A. (2017). Life-table representations of family dynamics in the 21st century. *Demographic Research*, 37, 1081-1230.

Aquilino, W.G. (1991). Family structure and home-leaving: A further specification of the relationship. *Journal of Marriage and the Family*, 53, 999-1010.

Armingeon, K., Isler, C., Knöpfel, L., Weisstanner, D. & Engler, S. (2016). *Comparative Political Data Set 1960-2014.* Bern: Institute of Political Science, University of Berne.

Axinn, W.G., & Thornton, A. (1992). The influence of parental resources on the timing of the transition to marriage. *Social Science Research*, 21, 261–285.

Axinn, W.G., & Thornton, A. (1996). The influence of parents' marital dissolutions on children's attitudes toward family formation. *Demography*, 33, 66-81.

Bäckman, O. (2008). Institutions, structures and poverty—a comparative study of 16 countries, 1980–2000. *European Sociological Review*, 25(2), 251-264.

Barber, J.S. (2001). The intergenerational transmission of age at first birth among married and unmarried men and women. *Social Science Research*, 30(2), 219-247.

Bernhardt, E. & Hoem, B. (1985). Cohabitation and social background: Trends observed for Swedish women born between 1936 and 1960, *European Journal of Population*, 1, 375-395.

Berrington, A., & Diamond, L. (1999). Marital dissolution among the 1958 British Birth Cohort: The role of cohabitation. *Population Studies*, 53, 19–38.

Berrington, A., & Diamond, I. (2000). Marriage or cohabitation: A competing risks analysis of first-partnership formation among the 1958 British Birth Cohort. *Journal of the Royal Statistical Society – Series A (Statistics in Society)*, 163, 127-151.

Billari, F.C. & Liefbroer, A.C. (2010). Towards a new pattern of transition to adulthood?, *Advances in Life Course Research*, 15, 59-75.

Blau, P.M., & Duncan, O.D. (1967). *The American occupational structure.* New York: Wiley & Sons.

Blaauboer, M., & Mulder, C.H. (2010). Gender differences in the impact of family background on leaving the parental home*. Journal of Housing and the Built Environment*, 25(1), 53-71.

Blossfeld, H.P., Hamerle, A., & Mayer, K.U. (2014). *Event history analysis: Statistical theory and application in the social sciences.* New York: Psychology Press.

Blossfeld, H.P., & Huinink, J. (1991). Human capital investments or norms of role transition? How women's schooling and career affect the process of family formation. *American Journal of Sociology*, 97(1), 143-168.

Blossfeld, H.P., de Rose, A., Hoem, J.M. & Rohwer, G. (1995). *Education, Modernization and the Risk of Marriage Disruption in Sweden, West Germany, and Italy.* In K.O. Mason & A.-M. Jensen (Eds.), Gender and Family Change in Industrialized Countries (pp. 200-222). Oxford, UK: Clarendon Press.

Bracher, M., Santow, G., Morgan, M. & Trussel, J. (1993). Marital dissolution in Australia: Models and explanations. *Population Studies*, 47(3), 403-425.

Breen, R., & Jonsson, J.O. (2005). Inequality of opportunity in comparative perspective: Recent research on educational attainment and social mobility. *Annual Review of Sociology*, 31, 223-243.

Brons, M.D., Liefbroer, A.C., & Ganzeboom, H.B.G. (2017). Parental Socio-Economic Status and First Union Formation: Can European Variation Be Explained by the Second Demographic Transition Theory? *European Sociological Review,* 33(6), 809-822.

Bryan, M. L., & Jenkins, S. P. (2016). Multilevel modelling of country effects: A cautionary tale, *European Sociological Review,* 32, 3–22.

Bumpass, L., & Lu, H.H. (2000). Trends in cohabitation and implications for children's family contexts in the United States. *Population studies*, 54, 29-41.

Bumpass, L.L., Martin, T.C. & Sweet, J.A. (1991). The impact of family background and early marital factors on marital disruption. *Journal of Family Issues*, 12(1), 22-42.

Bumpass, L.L., Sweet, J.A., & Cherlin, A.J. (1991). The role of cohabitation in declining rates of marriage. *Journal of Marriage and the Family,* 53, 338-355.

Cavanagh, S.E. (2011). Early pubertal timing and the union formation behaviours of young women, *Social Forces*, 89, 1217-1238.

CBS. (2012). *Documentatierapport Onderzoekgezinsvorming 2008V1*. The Hague: Centraal Bureau voor de Statistiek.

Chan, T.W. & Halpin, B. (2008). *The instability of divorce risk factors in the UK*. Working paper, Oxford University.

Cherlin, A.J. (2004). The deinstitutionalization of American marriage. *Journal of Marriage and Family,* 66(4)*,* 848-861.

Cherlin, A.J., Kiernan, K.E., & Chase-Lansdale, P.L. (1995). Parental divorce in childhood and demographic outcomes in young adulthood. *Demography*, 32, 299-318.

Clayton, P. (2017). STCOMLIST: Stata module to list cumulative function in presence of competing risks.

Cohen, J., & Manning, W. (2010). The relationship context of premarital serial cohabitation. *Social Science Research*, 39(5), 766-776.

Coppola, L. (2004). Education and union formation as simultaneous processes in Italy and Spain, *European Journal of Population*, 20, 219-250.

Council of Europe (2006). *Recent Demographic Developments in Europe*. Strasbourg: Council of Europe Publishing.

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

Dahlberg, J. (2015). Social background and becoming a parent in Sweden: A register-based study of the effect of social background on childbearing in Sweden. *European Journal of Population*, 31(4), 417-444.

De Graaf, P.M., & Kalmijn, M. (2006). Change and stability in the social determinants of divorce: A comparison of marriage cohorts in the Netherlands. *European Sociological Review*, 22(5), 561-572.

Dobbelaere, K. (1995). Religion in Europe and North America. From R.D. Moor (Eds.), *Values in Western Societies*. Tilburg: Tilburg University Press.

Dominguez-Folgueras, M., & Castro-Martin, T. (2013). Cohabitation in Spain: No longer a marginal path to family formation. *Journal of Marriage and Family*, 75(2), 422-437.

Dronkers, J., & Härkönen, J. (2008). The intergenerational transmission of divorce in cross-national perspective: Results from the Fertility and Families Surveys. *Population Studies*, 62, 273-288.

Easterlin, R. (1980). *Birth and Fortune.* New York, NY: Basic Books.

Elo, I.T. (2009). Social class differentials in health and mortality: Patterns and explanations in comparative perspective. *Annual Review of Sociology*, 35, 553-572.

Erola, J., Härkönen, J., & Dronkers, J. (2012). More careful or less marriageable? Parental divorce, spouse selection and entry into marriage. *Social forces*, 90(4), 1323-1345.

Esping-Andersen, G. (1990). *Three worlds of welfare capitalism*. Cambridge: Policy Press.

ESS (2006). *European Social Survey Round 3 Data. Edition 3.5*. Bergen NO: Norwegian Social Science Data Services, Norway.

Eurostat (2018). *Eurostat database, Population and Social Conditions, Fertility indicators* (demo_find). Available at http://ec.europa.eu/eurostat/data/database. Accessed on 17 April 2018.

Everitt, B.S., Landau, S., & Leese, M. (2001). *Cluster analysis (4th ed.)*. New York: Oxford University Press.

Fokkema, T., Kveder, A., Hiekel, N., Emery, T., & Liefbroer, A.C. (2016). Generations and Gender Programme Wave 1 data collection: An overview and assessment of sampling and fieldwork methods, weighting procedures, and cross-sectional representativeness. *Demographic Research*, 34, 499-524.

Frisch, M., & Hviid, A. (2006). Childhood family correlates of heterosexual and homosexual marriages: A national cohort study of two million Danes. *Archives of Sexual Behavior*, 35, 533-47.

Ganzeboom, H.B.G. & Treiman, D.J. (1996). Internationally comparable measures of occupational status for the 1988 International Standard Classification of Occupations, *Social Science Research*, 25, 201-239.

Glenn, N.D., & Kramer, K.B. (1987). The marriages and divorces of the children of divorce. *Journal of Marriage and the Family*, 49, 811-825.

Goldscheider, F.K., & Goldscheider, C. (1998). The effects of childhood family structure on leaving and returning home. *Journal of Marriage and the Family*, 60, 745-756.

Goldstein, J.R., & Kenney, C.T. (2001). Marriage delayed or marriage forgone? New cohort forecasts of first marriage for US women. *American Sociological Review*, 66, 506-519.

Goldthorpe, J.H. (1996). Class analysis and the reorientation of class theory: The case of persisting differentials in educational attainment, *The British Journal of Sociology*, 47, 481-505.

Goode, W.J. (1962). Marital Satisfaction and Instability-a Cross-Cultural Class Analysis of Divorce Rates. *International Social Science Journal*, 14(3), 507-526.

Hansen, T., Moum T., & Shapiro, A. (2007). Relational and individual well-being among cohabitors and married individuals in midlife: Recent trends from Norway. *Journal of Family Issues*, 28, 910 – 933.

Harbord, R.M., & Higgins, J.P.T. (2008). Meta-regression in Stata. *The Stata Journal*, 8, 493–519.

Härkönen, J., Bernardi, F., & Boertien, D. (2017). Family dynamics and child outcomes: An overview of research and open questions. *European Journal of Population*, 33, 163-184.

Härkönen, J., & Dronkers, J. (2006). Stability and change in the educational gradient of divorce. A comparison of seventeen countries*. European Sociological Review*, 22(5), 501-517.

Harris, R., Bradburn, M., Deeks, J., Harbord, R.M., Altman, D. & Sterne, J. (2008). Metan: fixed-and random-effects meta-analysis, *The Stata Journal*, 8, 3-28.

Heuveline, P. & Timberlake, J. M. (2004). The role of cohabitation in family formation: The United States in comparative perspective, *Journal of Marriage and Family*, 66, 1214-1230.

Hiekel, N. (2014). *The different meanings of cohabitation across Europe: How cohabiters view their unions and differ in their plans and behaviors.* Amsterdam: Amsterdam University Press.

Hiekel, N., Liefbroer, A.C. & Poortman, A. (2014). Understanding diversity in the meaning of cohabitation across Europe, *European Journal of Population*, 30, 391-410.

Higgins, J.P.T., Thompson, S.G., Deeks, J.J. & Altman, D.G. (2003). Measuring inconsistency in meta-analyses, *British Medical Journal*, 327, 557-560.

Hoem, J.M. (1997). Educational Gradients in Divorce Risks in Sweden in Recent Decades. *Population Studies*, 51(1), 19-27.

Hoem, B. & Hoem, J.M. (1992). The disruption of marital and non-marital union in contemporary Sweden. In J. Trussell, R. Hankinson & J. Tilton (Eds.), *Demographic Applications of Event History Analysis*. Clarendon Press: Oxford.

Hoem, J.M. & Kostova, D. (2008). Early traces of the Second Demographic Transition in Bulgaria: A joint analysis of marital and non-marital union formation, 1960-2004, *Population Studies: A Journal of Demography*, 62, 259-271.

Inglehart, R. (2006). Mapping global values. *Comparative Sociology*, 5, 115–136.

Jacquet, S.E., & Surra, C.A. (2001). Parental divorce and premarital couples: Commitment and other relationship characteristics. *Journal of Marriage and Family*, 63, 627-638.

Janssen, J. (2001). *Do opposites attract divorce: Dimensions of mixed marriage and the risk of divorce in the Netherlands.* (Doctoral Dissertation. Department of Sociology, University of Nijmegen, The Netherlands).

Kalmijn, M. (2011). The influence of men's income and employment on marriage and cohabitation: Testing Oppenheimer's theory in Europe. *European Journal of Population/Revue Européenne de Démographie*, 27(3), 269-293.

Karlson, K.B., Holm, A., & Breen, R. (2012). Comparing regression coefficients between same-sample nested models using logit and probit: A new method. *Sociological Methodology*, 42(1), 286-313.

Keijer, M.G., Nagel, I. & Liefbroer, A.C. (2016). Effects of parental cultural and economic status on adolescents' life course preferences, *European Sociological Review*, 32, 607–618.

Kennedy, S., & Bumpass, L. (2008). Cohabitation and children's living arrangements: New estimates from the United States. *Demographic research*, 19, 1663.

Kiernan, K. (1986). Teenage marriage and marital breakdown: A longitudinal study. *Population Studies*, 40(1), 35-54.

Kiernan, K.E. (2001). The rise of cohabitation and childbearing outside marriage in Western Europe, *International Journal of Law, Policy and the Family*, 15, 1-21.

Kiernan, K.E. (2003). Cohabitation and divorce across nations and generations. *CASEpaper 65.* London: Center for Analysis of Social Exclusion, London School of Economics.

Kiernan, K.E., & Hobcraft, J. (1997). Parental divorce during childhood: Age at first intercourse, partnership and parenthood. *Population Studies*, 51, 41-55.

Klijzing, E. (1992). "Weeding" in the Netherlands: First-union disruption among men and women born between 1928 and 1965. *European Sociological Review*, 8, 53-70.

Koops, J.C., Liefbroer, A.C., & Gauthier, A.H. (2017). The Influence of Parental Educational Attainment on the Partnership Context at First Birth in 16 Western Societies. *European Journal of Population*, 1-25.

Kravdal, Ø. (1999). Does marriage require a stronger economic underpinning than informal cohabitation?. *Population Studies*, 53, 63-80.

Lansford, J.E. (2009). Parental divorce and children's adjustment. *Perspectives on Psychological Science, 4*, 140–152.

Lappegård, T., Klüsener, S. & Vignoli, D. (2014). Social norms, economic conditions and spatial variation of childbearing within cohabitation across Europe, Rostock: *Max Planck Institute for Demographic Research* (WP-201400X).

Lesthaeghe, R. (1995). The Second Demographic Transition in Western Countries: An Interpretation. In K.O. Mason & A.-M. Jensen (Eds.), *Gender and Family Change in Industrialized Countries* (pp. 17–62). Oxford, UK: Clarendon Press.

Lesthaeghe, R. (2010). The unfolding story of the second demographic transition. *Population and Development Review*, 36, 211–251.

Lesthaeghe, R. & van de Kaa, D.J. (1986). "Twee demografische transities?" In.: D. J. van de Kaa and R. Lesthaeghe (eds.) *Bevolking: groei en krimp.* Van Loghum Slaterus, Deventer, pp. 9-24.

Li, J.H. & Wojtkiewicz, R.A. (1994). Childhood family structure and entry into first marriage. *Sociological Quarterly*, 35, 247-268.

Li, L.J.C.A., & Wu, L.L. (2008). No trend in the intergenerational transmission of divorce. *Demography, 45*, 875–883.

Lichter, D.T., & Qian, Z. (2008). Serial cohabitation and the marital life course. *Journal of Marriage and Family*, 70, 861-878.

Liefbroer, A.C. (1991). The choice between a married and unmarried first union by young adults. *European Journal of Population*, 7, 273-289.

Liefbroer, A.C. & Corijn, M. (1999). Who, what, where, and when? Specifying the impact of educational attainment and labour force participation on family formation, *European Journal of Population*, 15, 45-75.

Lyngstad, T.H. (2004). The impact of parents' and spouses' education on divorce rates in Norway. *Demographic Research*, 10, 121-142.

Lyngstad, T.H. (2006). Why do couples with highly educated parents have higher divorce rates? *European Sociological Review*, 22, 49–60.

Lyngstad, T.H. & Jalovaara, M. (2010). A review of the antecedents of union dissolution. *Demographic Research*, 23, 257-292.

Mäenpää, E. & Jalovaara, M. (2014). Homogamy in socio-economic background and education, and the dissolution of cohabiting unions. *Demographic Research*, 30(65), 1769-1792.

Manning, W.D., & Cohen, J.A. (2015). Teenage cohabitation, marriage, and childbearing. *Population research and policy review*, 34, 161-177.

Martin, S.P. (2006). Trends in marital dissolution by women's education in the United States. *Demographic Research*, 15, 537–559.

Martin, S.P., & Parashar, S. (2006). Women's changing attitudes toward divorce, 1974–2002: Evidence for an educational crossover. *Journal of Marriage and Family*, 68(1), 29-40.

Matysiak, A., Styrc, M., & Vignoli, D. (2014). The educational gradient in marital disruption: A meta-analysis of European research findings. *Population Studies*, 68(2), 197-215.

McLanahan, S. (2004). Diverging destinies: How children are faring under the second demographic transition. *Demography*, 41(4), 607-627.

McLanahan, S., & Percheski, C. (2008). Family structure and the reproduction of inequalities. *Annual Review of Sociology*, 34, 257-276.

Michael, R.T. & Tuma, N.B. (1985). Entry into marriage and parenthood by young men and women: The influence of family background, *Demography*, 22, 515-544.

Mills, M., & Blossfeld, H.P. (2013). The Second Demographic Transition meets globalization: A comprehensive theory to understand changes in family formation in an era of rising uncertainty. In Evans, A. & Baxter, J. (eds.). *Negotiating the Life Course. Stability and Change in Life Pathways.* Dordrecht: Springer: 9-33.

Mooyaart, J.E., & Liefbroer, A.C. (2016). The influence of parental education on timing and type of union formation: changes over the life course and over time in the Netherlands. *Demography*, 53(4), 885-919.

Mulder, C.H., Clark, W.A.V. & Wagner, M. (2006). Resources, living arrangements and first union formation in the United States, the Netherlands and West Germany, *European Journal of Population*, 22, 3-35.

Ohlsson-Wijk, S. (2011). Sweden's marriage revival: An analysis of the new-millennium switch from long-term decline to increasing popularity. *Population Studies*, 65, 183-200.

Ongaro, F. & Mazzuco, S. (2009). Parental separation and family formation in early adulthood: Evidence from Italy. *Advances in Life Course Research*, 14, 119-130.

Oppenheimer, V.K. (1988). A theory of marriage timing. *American Journal of Sociology*, 94, 563–591.

Perelli-Harris, B., Berrington, A., Sánchez Gassen, N., Galezewska, P., & Holland, J.A. (2017). The rise in divorce and cohabitation: Is there a link?. *Population and Development Review*, 43, 303-329.

Perelli-Harris, B., & Gassen, N.S. (2012). How similar are cohabitation and marriage? Legal approaches to cohabitation across Western Europe. *Population and Development Review*, 38(3), 435-467.

Perelli-Harris, B., & Gerber, T.P. (2011). Nonmarital childbearing in Russia: Second demographic transition or pattern of disadvantage?. *Demography*, 48, 317-342.

Perelli-Harris, B., Kreyenfeld, M., & Kubisch, K. (2010). *Harmonized histories: Manual for the preparation of comparative fertility and union histories* (No. WP-2010-011). Max Planck Institute for Demographic Research, Rostock, Germany.

Poortman, A.R., & Mills, M. (2012). Investments in marriage and cohabitation: The role of legal and interpersonal commitment. *Journal of Marriage and Family*, 74(2), 357-376.

Raab, M. (2017). Childhood family structure and early family formation in East and West Germany. *Journal of Marriage and Family*, 79(1), 110-130.

Raab, M., Fasang, A.E., Karhula, A., & Erola, J. (2014). Sibling similarity in family formation. *Demography*, 51, 341.

Raymo, J.M., & Iwasawa, M. (2017). *Diverging Destinies: The Japanese Case.* Springer: Singapore.

Rijken, A.J., & Liefbroer, A.C. (2009). Influences of the family of origin on the timing and quantum of fertility in the Netherlands. *Population Studies*, 63(1), 71-85.

Sassler, S., Addo, F. & Hartmann, E. (2010). The tempo of relationship progression among low income couples, *Social Science Research*, 39, 831-844.

Sassler, S., Cunningham, A., & Lichter, D.T. (2009). Intergenerational patterns of union formation and relationship quality. *Journal of Family Issues*, 30, 757-786.

Sassler, S., & Goldscheider, F. (2004). Revisiting Jane Austen's theory of marriage timing: Changes in union formation among American men in the late 20th century. *Journal of Family Issues*, 25, 139-166.

Schneider, D., & Hastings, O.P. (2015). Socioeconomic variation in the effect of economic conditions on marriage and nonmarital fertility in the United States: Evidence from the Great Recession. *Demography*, 52(6), 1893-1915.

Schröder, H. & Ganzeboom, H.B.G. (2014). Measuring and modeling education levels in European societies, *European Sociological Review*, 30, 119-136.

Schwartz, C.R. (2013). Trends and variation in assortative mating: Causes and consequences. *Annual Review of Sociology*, 39, 451-470.

Shavit, Y., & Blossfeld, H.P. (1993) *Persistent Inequality: Changing educational attainment in thirteen countries.* Boulder, CO: Westview Press.

Sigle-Rushton, W., Hobcraft, J., & Kiernan, K. (2005). Parental divorce and subsequent disadvantage: A cross-cohort comparison. *Demography*, 42, 427-446.

Snijders, T.A.B., & Bosker, R. (2012). *Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling*, 2nd ed . Thousand Oaks, CA: Sage Publications Ltd.

Sobotka, T. (2008). Overview chapter 6: The diverse faces of the second demographic transition in Europe. *Demographic Research*, 19, 171–224.

Sobotka, T., & Toulemon, L. (2008). Overview Chapter 4: Changing family and partnership behaviour: Common trends and persistent diversity across Europe. *Demographic Research,* 19(6), 85-138.

Soons, J.P.M. & Kalmijn, M. (2009). Is marriage more than cohabitation? Ill-being differences in 30 European countries. *Journal of Marriage and Family*, 71, 1141-1157.

South, S. J. (2001). The variable effects of family background on the timing of first marriage: United States, 1969–1993. *Social Science Research*, 30, 606–626.

Sweeney, M.M. (2002). Two decades of family change: The shifting economic foundations of marriage, *American Sociological Review*, 67, 132-147.

Tasker, F.L. & Richards, M.P.M. (1994). Adolescents' attitudes toward marriage and marital prospects after parental divorce: A review. *Journal of Adolescent Research*, 9, 40-362.

Thomson, E., McLanahan, S.S., & Curtin, R.B. (1992). Family structure, gender, and parental socialization. *Journal of Marriage and Family*, 54, 368-378.

Thornton, A. (2013). *Reading history sideways: The fallacy and enduring impact of the developmental paradigm on family life.* University of Chicago Press.

Thornton, A., Axinn, W.G., & Xie, Y. (2007). *Marriage and cohabitation*. Chicago: University of Chicago Press.

Todesco, L. (2013). Family social background and marital instability in Italy. Do parental education and social class matter? *The Social Science Journal*, 50(1), 112-126.

Trost, J. (1975). Married and unmarried cohabitation: The case of Sweden, with some comparisons. *Journal of Marriage and the Family*, 37, 677-682.

Tukey, J.W. (1977). *Exploratory data analysis*. Reading, MA: Addison-Wesley.

Uecker, J.E. & Stokes, C.E. (2008). Early marriage in the United States. *Journal of Marriage and Family*, 70, 835-846.

United Nations. (2009). *World marriage data 2008*. New York: United Nations Department of Economic and Social Affairs, Population Division (POP/DB/Marr/Rev2008). Retrieved from http://www.un.org/esa/population/publications/WMD2008/Main.html

United Nations. (2013). *United Nations demographic yearbook (2013).* New York: United Nations Department of Economic and Social Affairs, Population Division.

Van de Kaa, D.J. (1987). Europe's Second Demographic Transition. *Population Bulletin*, 42 (1), 1-59.

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

Villeneuve-Gokalp, C. (1991). From marriage to informal union: Recent changes in the behavior of couples. *Population: An English Selection*, 3, 81-111.

Weiss, R.S. (1979). Growing up a little faster: The experience of growing up in a single-parent household. *Journal of Family Issues*, 35, 97-111.

Wiik, K.A. (2009). You'd better wait. Socio-economic background and timing of first marriage versus first cohabitation. *European Sociological Review*, 25, 139–153.

Winkler-Dworak, M. & Toulemon, L. (2007). Gender differences in the transition to adulthood in France: Is there convergence over the recent period?, *European Journal of Population*, 23, 273-314.

Wolfinger, N.H. (2003). Parental divorce and offspring marriage: Early or late? *Social Forces*, 82(1), 337-353.

Wolfinger, N.H. (2005). *Understanding the Divorce Cycle: The Children of Divorce in Their Own Marriages*. Cambridge: Cambridge University Press.

Yamaguchi, K. (1991). *Event History Analysis*. London: Sage.

Zaidi, B., & Morgan, S.P. (2017). The second demographic transition theory: A review and appraisal. *Annual review of sociology*, 43, 473-492.

Zakharov, S. (2008). Russian Federation: From the first to second demographic transition. *Demographic Research*, *19*(24), 907-972.

Appendices Chapter 2

We have split the Supplementary Materials into six sections.

Content

1. An overview of the literature reviewed for this paper
2. Meta-analytic results censored at age 45 for the total effect of parental SES on first union for men and women
3. Meta-analytic results with weights for the total effect of parental SES on first union for men and women
4. Additional meta-analytic results for men and women
5. Additional meta-regression results
6. Meta-regression results with alternative SDT indicators

1. An overview of the literature reviewed for this paper

Appendix Table A2.1 presents a literature review of existing studies that have examined the link between parental socio-economic status and the timing of the formation of the first union.

Table A2.1. Overview of previous studies of the effect of parental SES on the timing of formation of union (cohabitation and/or marriage).

Authors	Year	Cntry	N	Operationalization parental SES	M / F[1]	Dependent variable	Method	Effect [2]	Extra information
Michael & Tuma	1985	US	9439	Father's + mother's education and if father and mother were employed when respondent was age 14	M+F	First marriage	Proportional hazard model	N[3]	Stronger effect of parental education is found for women than for men.
Bernhardt & Hoem	1985	SE		Socio-economic group of main breadwinner in parental home: workers, salaried employees and farmers + self-employed	F	First cohabitation + marriage	Multiplicative intensity hazard models	N[3]	
Goldscheider & Waite	1986	US	20616[4]	Parental education & occupation + family income	M+F	First marriage	Discrete time logistic model	N	Stronger effect of parental education and income is found for women than for men. Stronger effect of occupation is found for men than for women.
Blossfeld & Huinink	1991	DE	2171	Father's social class	F	First marriage	Hazard rate models	N[3]	The effect of father's social class disappeared when individual educational attainment and enrolment were included in the model.
Axinn & Thornton	1992	US	12381[4]	Family income, family's total assets + sum of mothers and father's years of education reported by the mother	M+F	First marriage	Discrete time hazard rate analysis	N[3]	A stronger effect of parental SES is found for men than for women.
South	2001	US	6570	Family income-to-needs ratio, years of school completed by mother when respondent was age 14	M+F	First marriage	Discrete time event history analysis	N	
Sweeney	2002	US	8551	Father employed in a managerial or professional occupation + mother's educational attainment	M+F	First marriage	Discrete time logistic model	N	
Mulder, Clark & Wagner	2006	US, NL, DE-W	6177	Fathers education, income/socio-economic status	F	First marriage + first union	Discrete time logistic model	N	Parental status is found to matter more to formation of first union that takes place from the parental home than from independence. Differences between countries in the impact of parental status are found

Table A2.1 (continued). Overview of previous studies of the effect of parental SES on the timing of formation of union (cohabitation and/or marriage).

Authors	Year	Cntry	N	Operationalization parental SES	M / F[1]	Dependent variable	Method	Effect [2]	Extra information
Winkler-Dworak & Toulemon	2007	FR	240000	Father's occupation	M+F	First union	Piecewise constant hazard model	P	The positive effect is only found for men.
Uecker & Stokes	2008	US	14165	Ordinal measure of family income, binary variable for parents' education (college degree, yes/no)	M+F	(early) Marriage	Discrete-time proportional hazard model	N	A stronger effect of parental education is found for women than for men.
Hoem & Kostova	2008	BU	5610	Mother's and father's educational attainment (high, middle, low)	F	First cohabitation + first marriage	Multiplicative intensity hazard model	N	
Wiik	2009	NO	6317	Father's and mother's highest level of education + perceived economic well-being during childhood	M+F	First cohabitation + marriage	Discrete time multinomial logistic model	N	The effect of parental education is only found for first cohabitation, not for marriage. Persons reporting a good economic family background, on the other hand, defer entry into first marriage.
Sassler, Addo & Hartmann	2010	US	1095	Mother's educational attainment	M+F	First cohabitation vs marriage	Logistic regression	N[3]	
Cavanagh	2011	US	7523	Highest number of years of schooling completed by most educated parent	F	Cohabitation + marriage	Bivariate Cox proportional hazard model	N	
Mooyaart & Liefbroer	2016	NL	39777	Father's & Mother's level of educational attainment	M+F	First union + first marriage	Discrete-time hazard models	N	

[1] M = Male, F= Female
[2] N = Negative effect, P = Positive effect
[3] In this model the educational level of the child/young adult is not included
[4] Number of person periods instead of respondents

2. Meta-analytic results censored at age 45 for the total effect of parental SES on first union for men and women

In this study, we restrict our analysis to ages 15 to 35, but we checked whether the results would change if we censored at age 45 instead of 35. In this section of the Appendix, we present the total effect of parental SES on the timing of first union for men and women, but then censored at age 45. The results are almost identical to the results shown in Figure 2.1a and 2.1b in the main text.

Figure A2.1a. TOTAL effect of parental SES on the timing of first union for WOMEN in 25 European countries. Meta-analysis of estimates from discrete-time logistic models censored at age 45. (Total number of observations = 219,755)

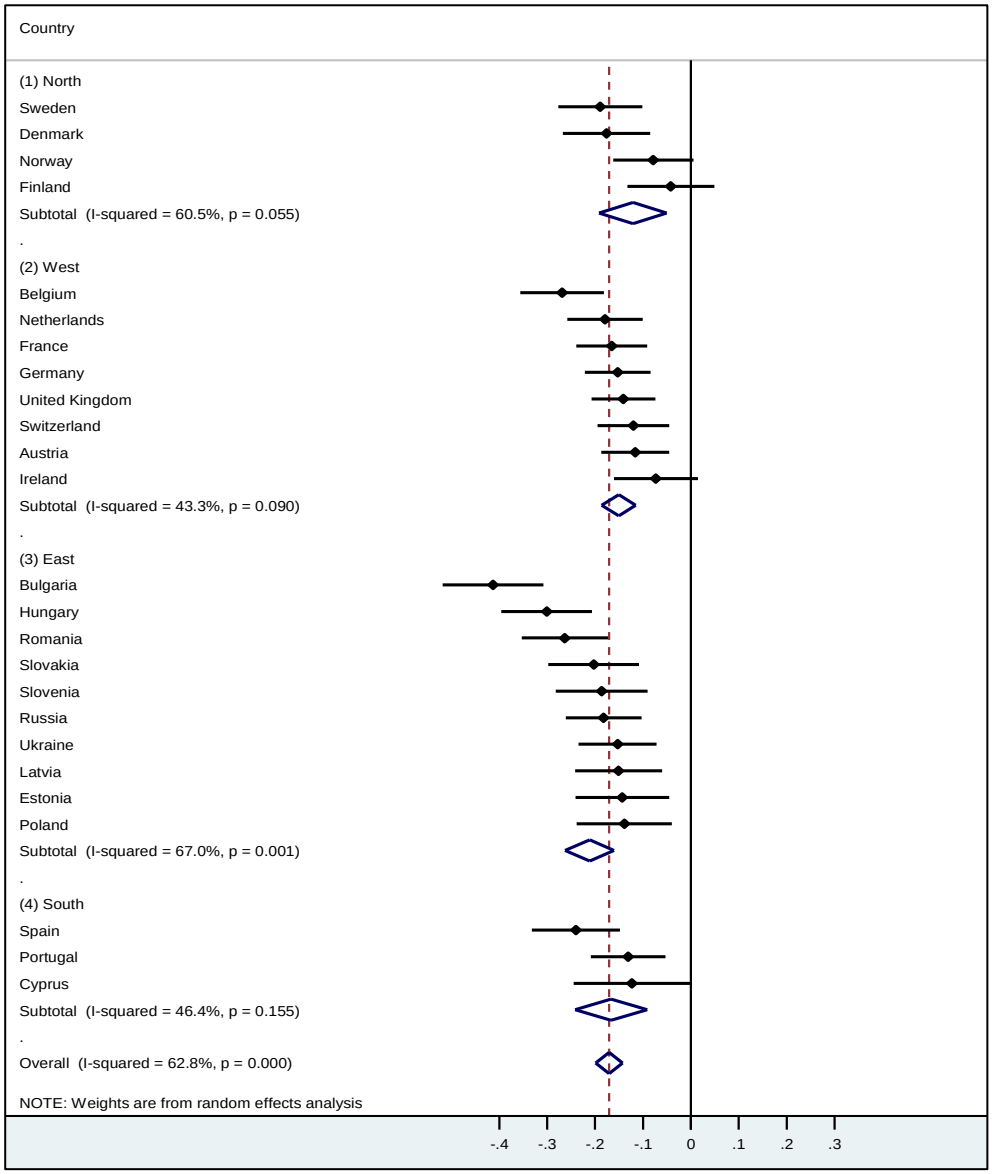
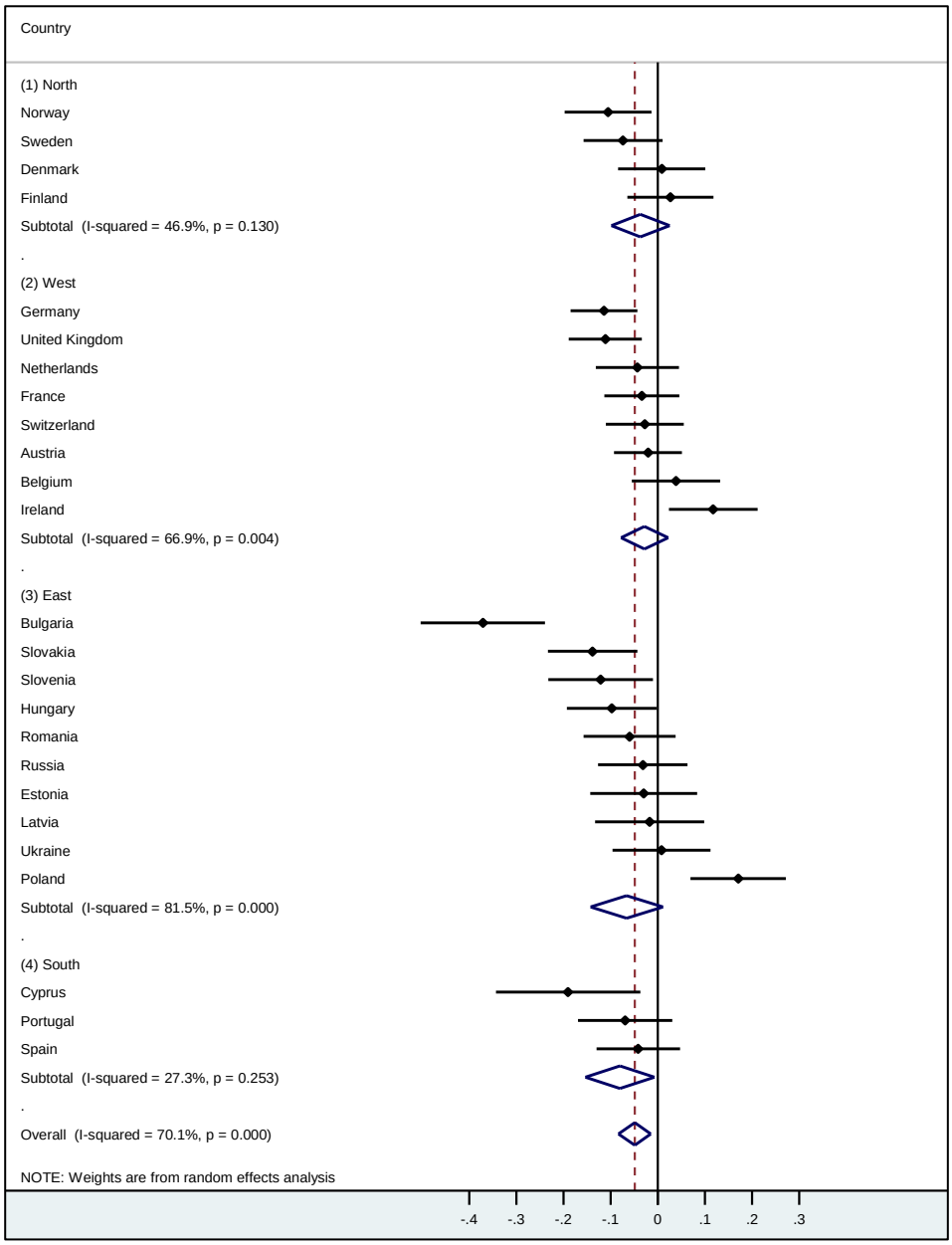


Figure A2.1b. TOTAL effect of parental SES on the timing of first union for MEN in 25 European countries. Meta-analysis of estimates from discrete-time logistic models censored at age 45. (Total number of observations = 221,328)



3. Meta-analytic results with weights for the total effect of parental SES on first union for men and women

We did not use weights, since the analyses with weights are almost identical and weights were not available for all countries (not available for Latvia and Romania). In this section of the Appendix, we present the total effect of parental SES on the timing of first union for men and women, but then with post-stratification weights included in the model. The results are almost identical to the results shown in Figure 2.1a and 2.1b in the main text.

Figure A2.2a. TOTAL effect of parental SES on the timing of first union for WOMEN in 25 European countries. Meta-analysis of estimates from discrete-time logistic models with post-stratification weights.

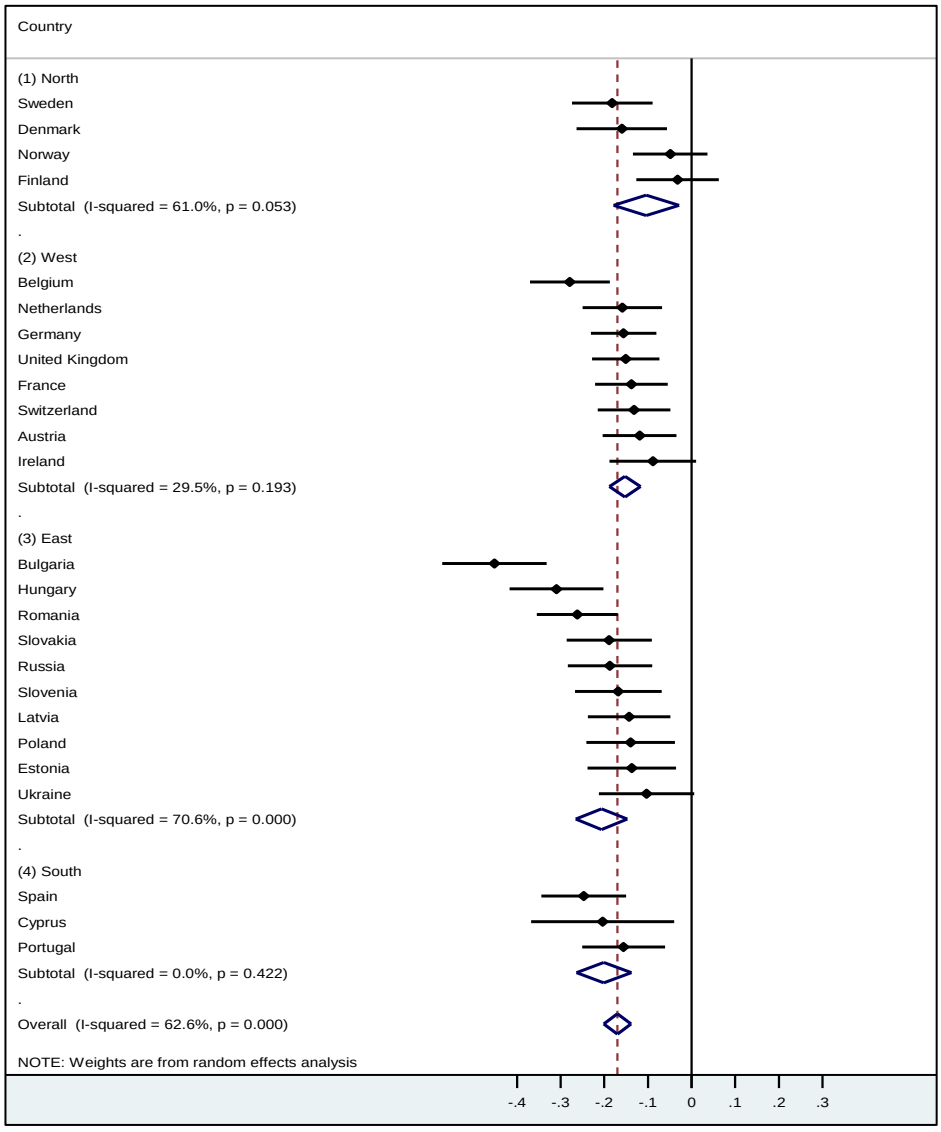
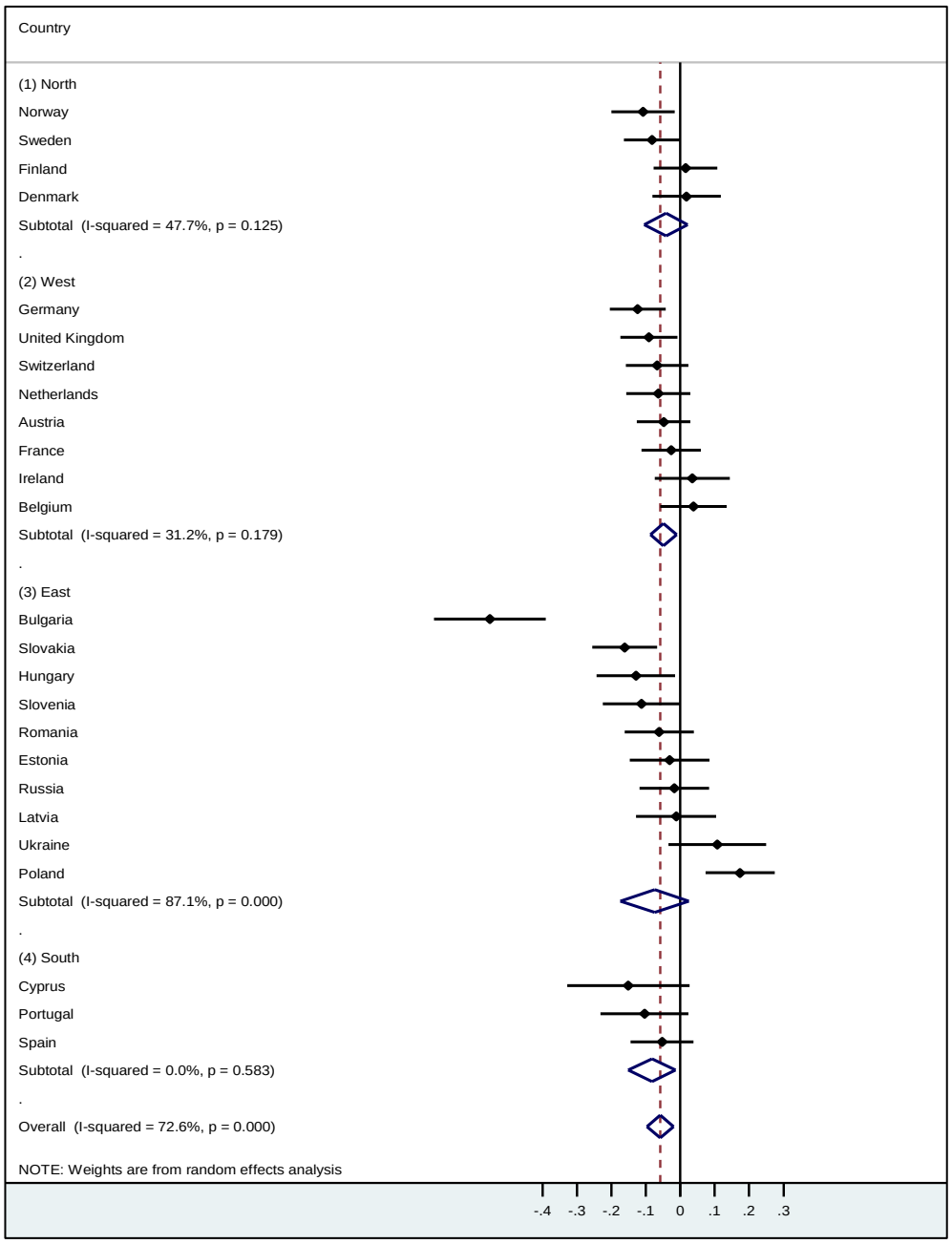


Figure A2.2b. TOTAL effect of parental SES on the timing of first union for MEN in 25 European countries. Meta-analysis of estimates from discrete-time logistic models with post-stratification weights.



4. Additional meta-analytic results for men and women

In the main body of the text, we only show a subset of the results of our meta-analyses. In this section of the Appendix, we present the additional meta-analytical results for men and women.

Figure A2.3a and A2.3b show the total effect of parental SES on the timing of cohabitation and marriage as first union for men. The results for men show the same pattern as for women, but it is somewhat weaker.

Figures A2.4a and A2.4b show the effect of parental SES on cohabitation and marriage as first union for women, controlled for individuals' own education. After including individuals' own education as a mediator between parental SES and timing of first union, almost all cross-national variation disappears.

Figures A2.5a, A2.5b and A2.5c show the net effect of parental SES for first union, first cohabitation, and first marriage for men. These Figures indicate that for men the effect of parental SES on formation of first union becomes insignificant after controlling for individuals' own education as a mediator. Moreover, as shown by the results for women in the main text, after including individuals' own education the cross-national variation almost disappeared.

Figure A2.3a. TOTAL effect of parental SES on the timing of COHABITATION as first union for MEN in 25 European countries. Meta-analysis of estimates from discrete-time logistic models.

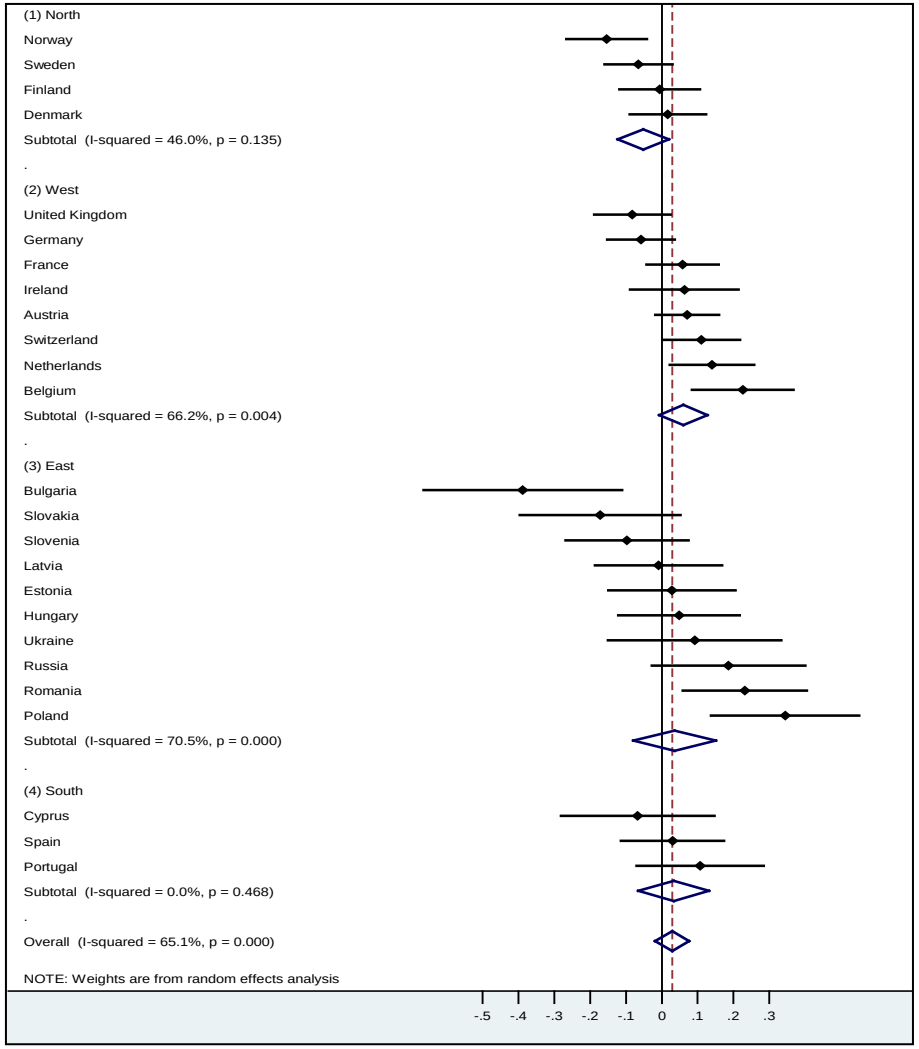


Figure A2.3b. TOTAL effect of parental SES on the timing of MARRIAGE as first union for MEN in 25 European countries. Meta-analysis of estimates from discrete-time logistic models.

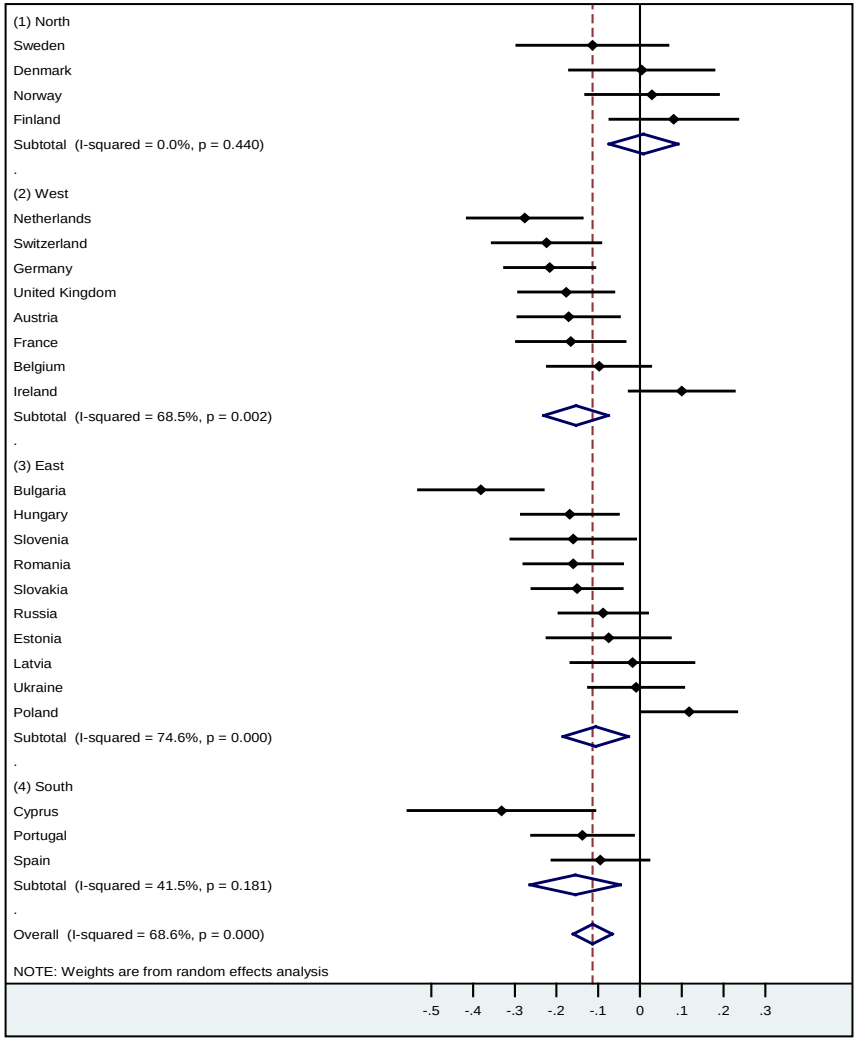


Figure A2.4a. NET effect of parental SES on the timing of COHABITATION as first union for WOMEN in 25 European countries. Meta-analysis of estimates from discrete-time logistic models.

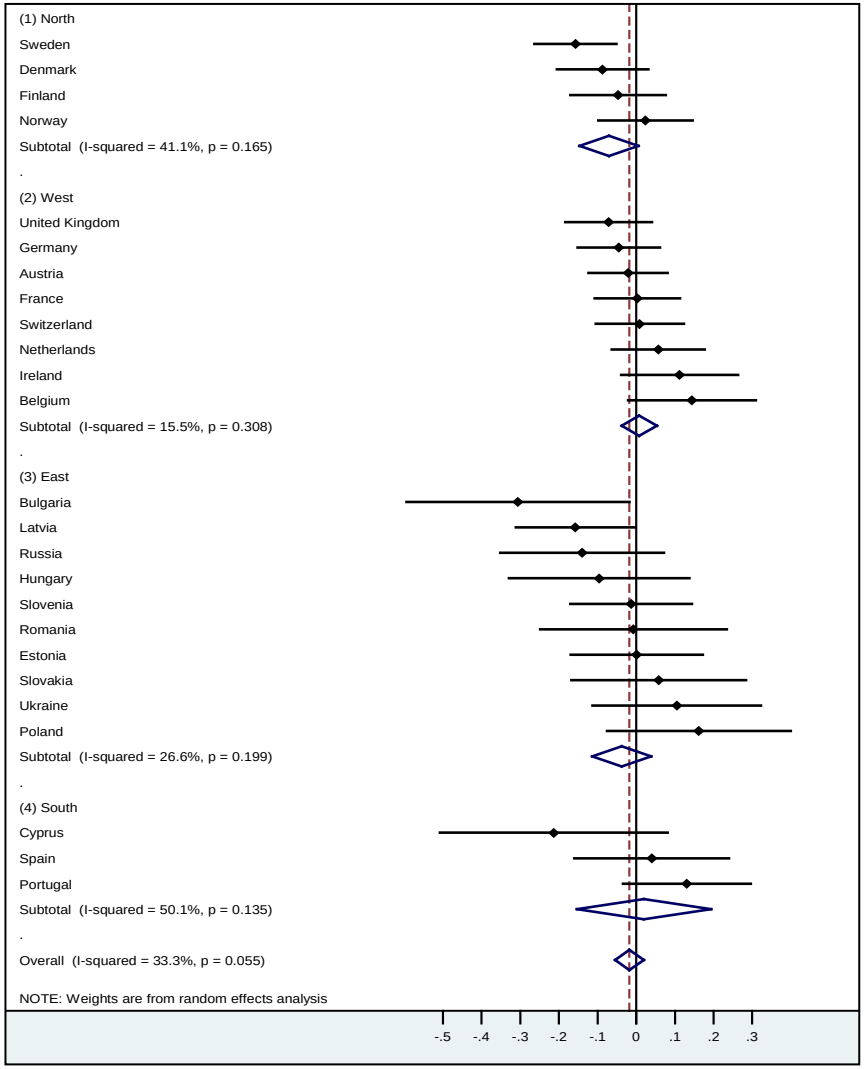


Figure A2.4b. NET effect of parental SES on the timing of MARRIAGE as first union for WOMEN in 25 European countries. Meta-analysis of estimates from discrete-time logistic models.

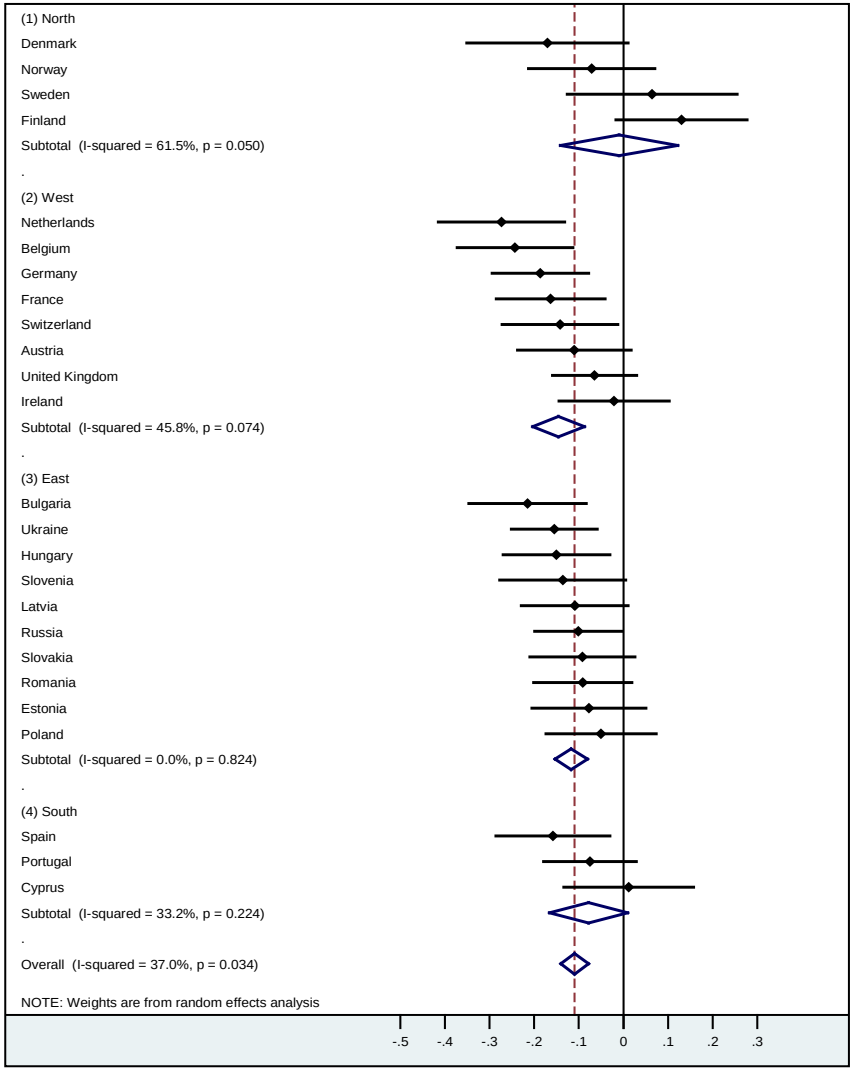


Figure A2.5a. NET effect of parental SES on the timing of first union for MEN in 25 European countries. Meta-analysis of estimates from discrete-time logistic models.

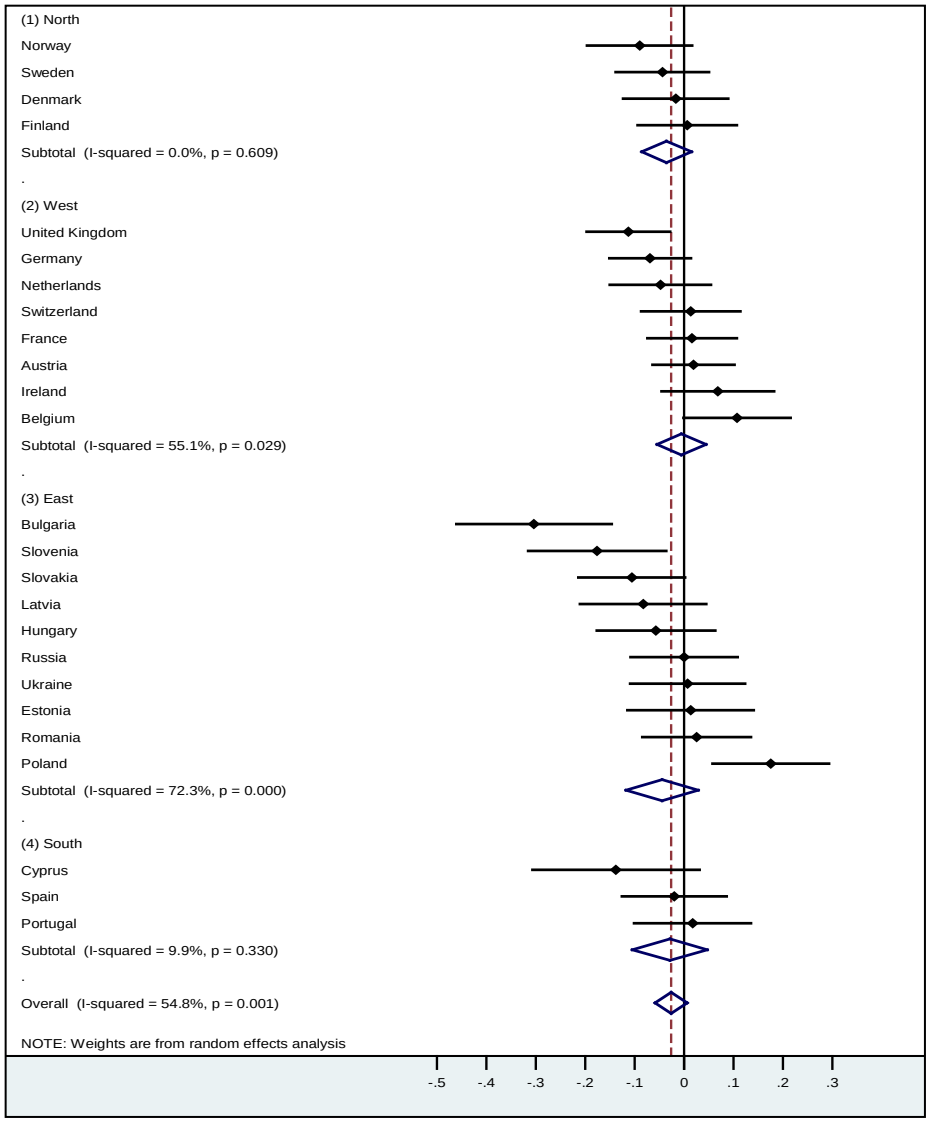


Figure A2.5b. NET effect of parental SES on the timing of COHABITATION as first union for MEN in 25 European countries. Meta-analysis of estimates from discrete-time logistic models.

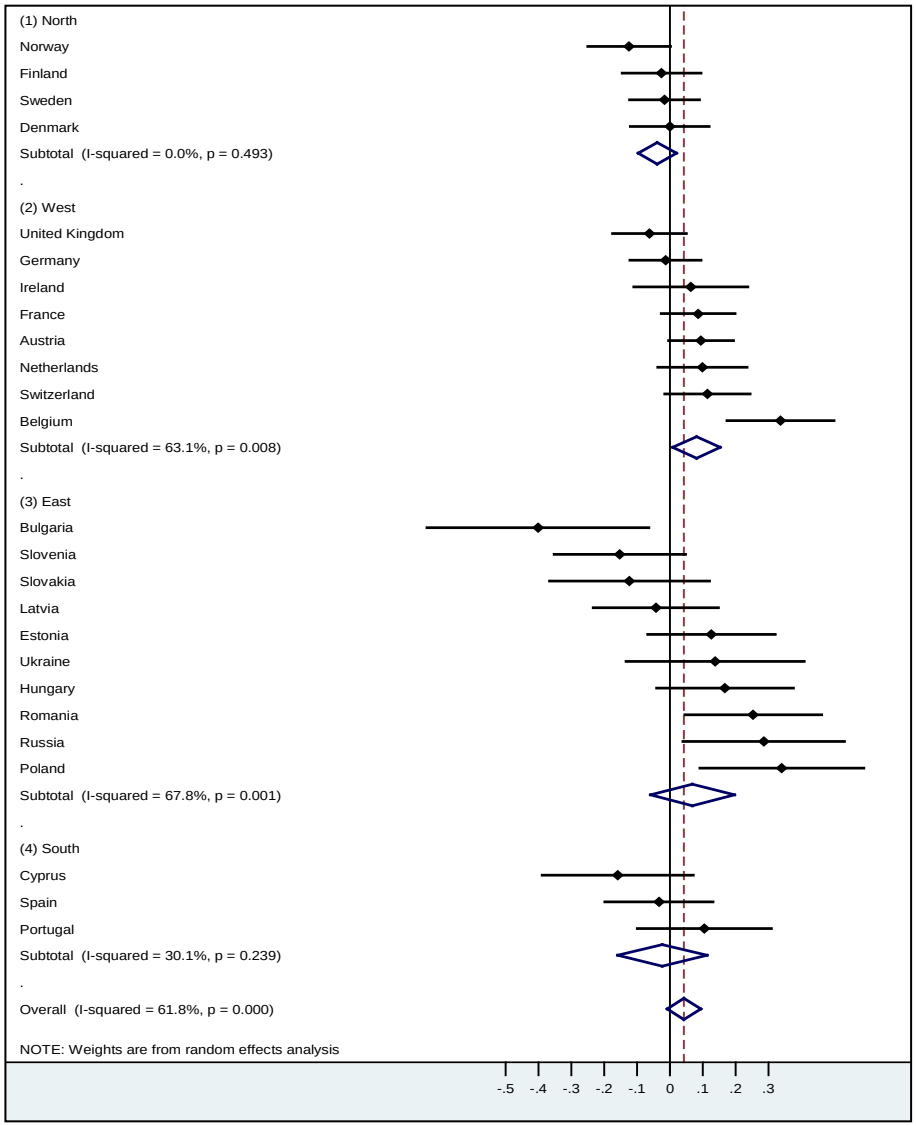
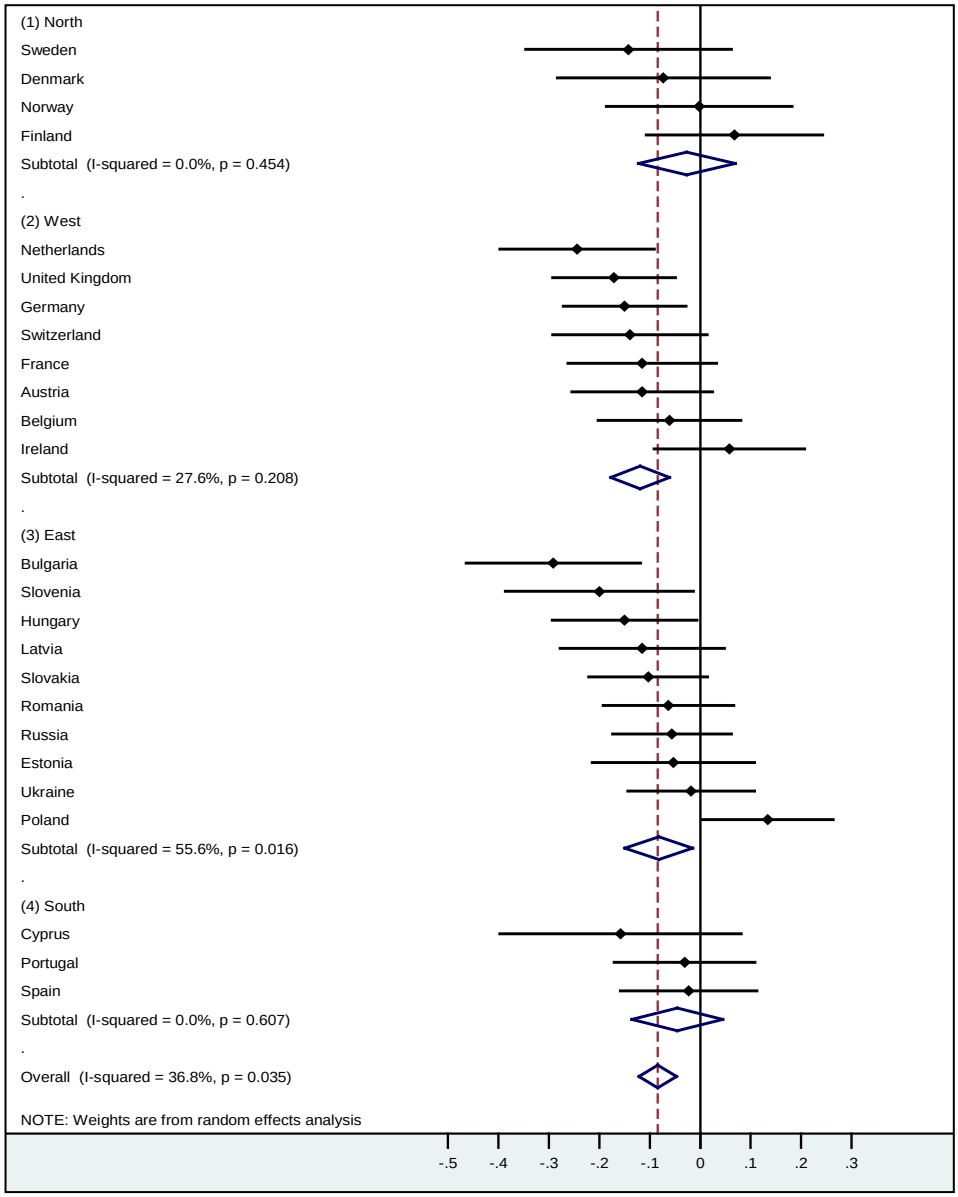


Figure A2.5c. NET effect of parental SES on the timing of MARRIAGE as first union for MEN in 25 European countries. Meta-analysis of estimates from discrete-time logistic models.



5. Additional meta-regression results

To accompany the meta-regression results presented in Figures 2.2a and 2.2b in the main body of the paper, all regression coefficients for the interaction between parental SES and SDT country-level indicators are presented in Table A2.2.

Table A2.2. Regression coefficients of the interaction between total and net effect of parental SES and SDT progression indicators with meta regression

Women	**Total effect parental SES**			**Net effect parental SES**		
	First union b (SE)	First cohabitation b (SE)	First marriage b (SE)	First union b (SE)	First cohabitation b (SE)	First marriage b (SE)
Age-norm	-.150 (.089)	.026 (.119)	-.086 (.135)	.006 (.066)	.104 (.117)	.019 (.107)
Percentage cohabiters	.178 (.080)*	-.047 (.112)	.099 (.127)	.041 (.060)	-.201 (.105)#	.063 (.100)
Religiosity	.006 (.016)	.039 (.021)#	.010 (.023)	.021 (.011)#	.050 (.020)*	.021 (.017)
Men	**Total effect parental SES**			**Net effect parental SES**		
	First union b (SE)	First cohabitation b (SE)	First marriage b (SE)	First union b (SE)	First cohabitation b (SE)	First marriage b (SE)
Age-norm	-.145 (.117)	.051 (.162)	-.192 (.150)	-.060 (.108)	.015 (.181)	-.042 (.125)
Percentage cohabiters	.071 (.112)	-.194 (.147)	.050 (.144)	-.017 (.100)	-.206 (.165)	-.107 (.113)
Religiosity	.019 (.101)	.060 (.026)*	.007 (.026)	.029 (.018)	.038 (.031)	.037 (.019)#

**: p < .05 #: p < .10 (two-tailed test)*

6. Meta-regression results with alternative SDT indicators

Finally, in addition to the three country level indicators examined in the paper, we also tested, as a robustness check, whether there is also an association between the two SDT indexes (behavioural index, SDT1 and value index, SDT2), developed by Sobotka (2008) and the effect of parental SES on the timing of first union for women. Unfortunately, these SDT indexes were not available for all ESS countries. We only have this information for 21 countries. The conclusion from these additional analyses is that there is an association between the behavioural SDT index (SDT1) and the effect of parental SES, so the more advanced a country is in the SDT, the weaker the impact of parental SES on the timing of first union (see Figure A2.6a; b = .015, p = .043 (one-tailed)). This result is in line with the results of the behavioural country level indicator used in our study (the percentage of cohabiters in a country). For the value SDT index (SDT2, see Figure A2.6b), we found no association with parental SES (b = .009, p = ns), which is also in line with the two other country level indicators used in our study (age norm of leaving home and religiosity).

Figure A2.6a. Association between the total effect of parental SES on the timing of first union for WOMEN and SDT index 1 (Sobotka, 2008).

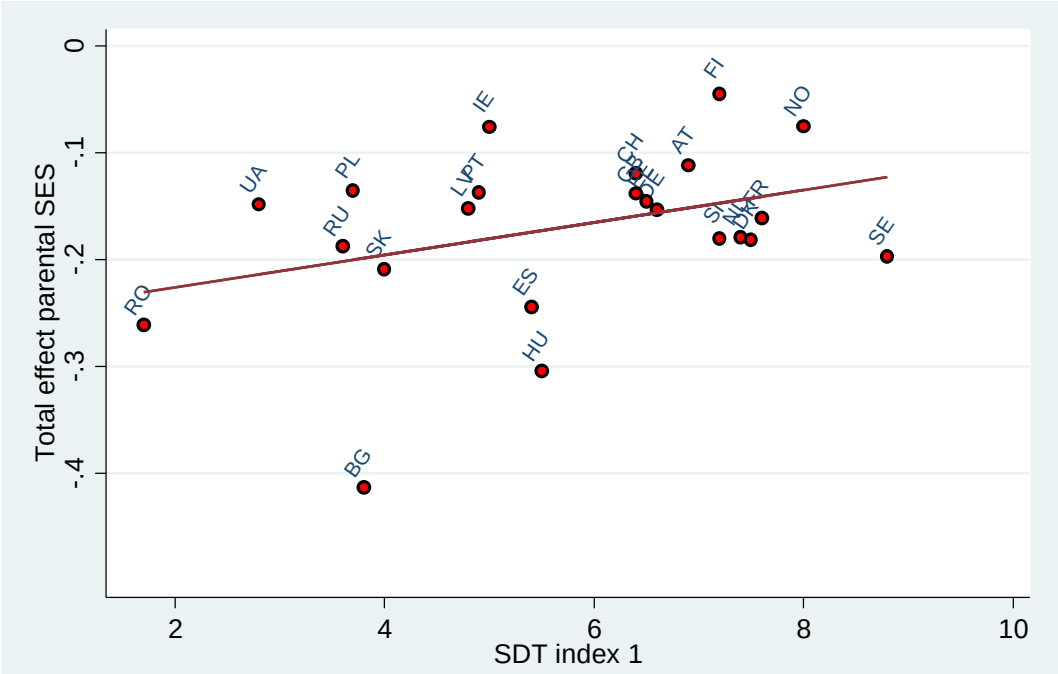
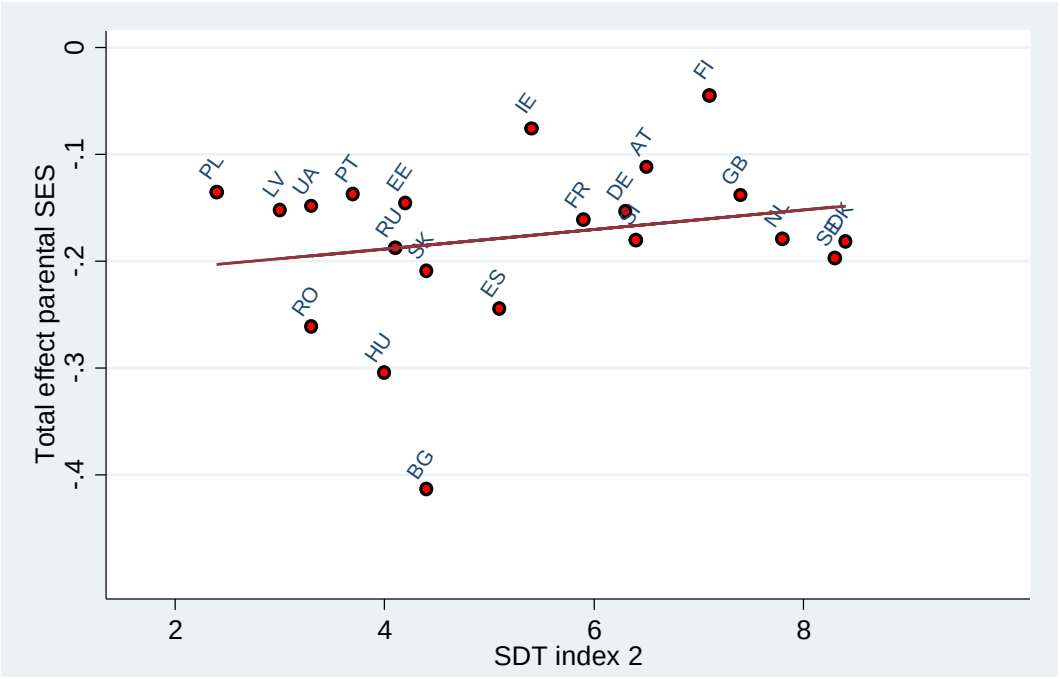


Figure A2.6b. Association between the total effect of parental SES on the timing of first union for WOMEN and SDT index 2 (Sobotka, 2008).



Appendices Chapter 3

Table A3.1. Overall pooled model for all the 20 countries for respondents born between 1960 and 1994: Effect of parental education on timing of first marriage separately for women and men.

	Model 1 B (SE)	Model 2 B (SE)	Model 3a B (SE)	Model 3b B (SE)
Women			Not cohabiting	Cohabiting
Effect parental education	-.129 ** (.016)	-.089 ** (.011)	-.121 ** (.014)	-.002 (.015)
Cross-national variation (I^2)	90.5%	76.5%	81.8%	70.2%
Men			Not cohabiting	Cohabiting
Effect parental education	-.120 ** (.015)	-.102 ** (.014)	-.118 ** (.019)	-.052 * (.019)
Cross-national variation (I^2)	79.9%	72.9%	82.6%	67.6%

Note: In all models controlled for age and squared term, birth year and squared term, and the interactions between parental education and age (and squared term).

*= p<.05, ** = p<.01

Figure A3.1a. Net effect of parental education on marriage for **women** (controlled for own education and enrollment) for 18 European and two North-American countries. Meta-analysis of estimates from discrete- time logistic models.

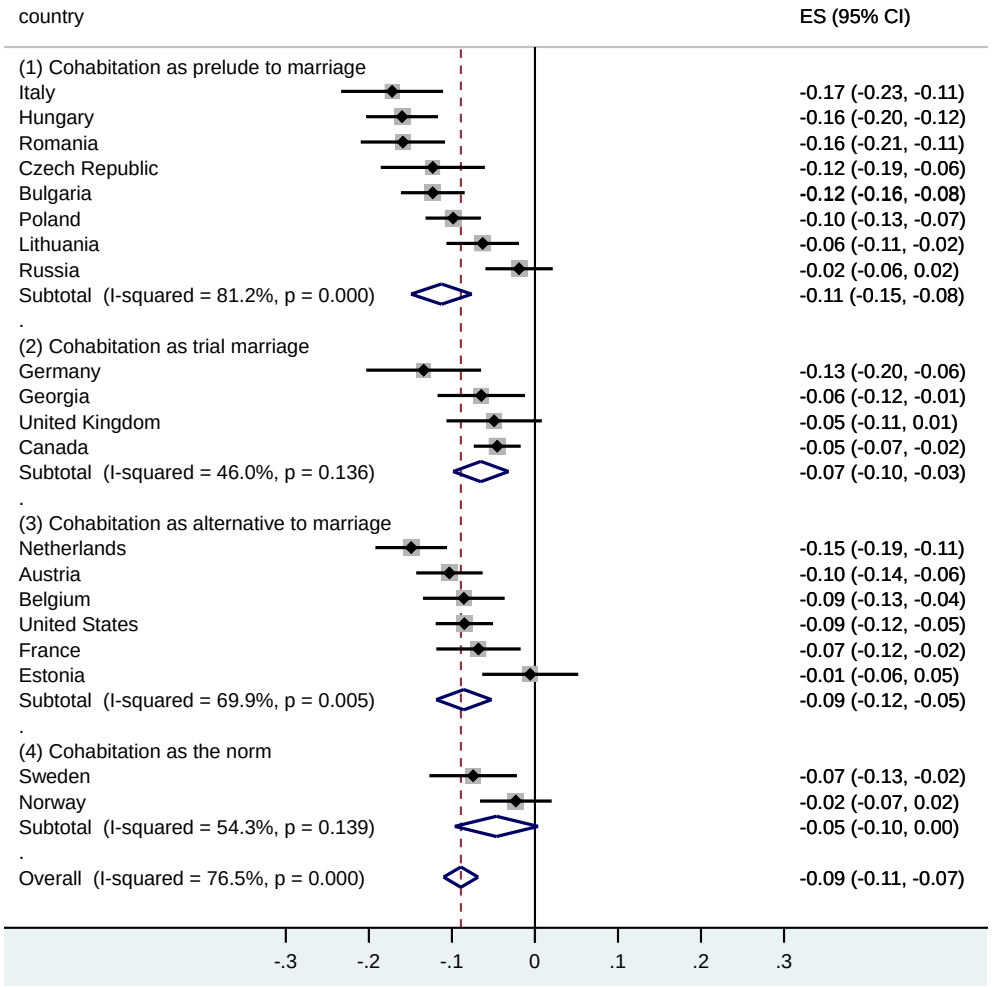


Figure A3.1b. Net effect of parental education on marriage for **men** (controlled for own education and enrollment) for 18 European and two North-American countries. Meta-analysis of estimates from discrete- time logistic models.

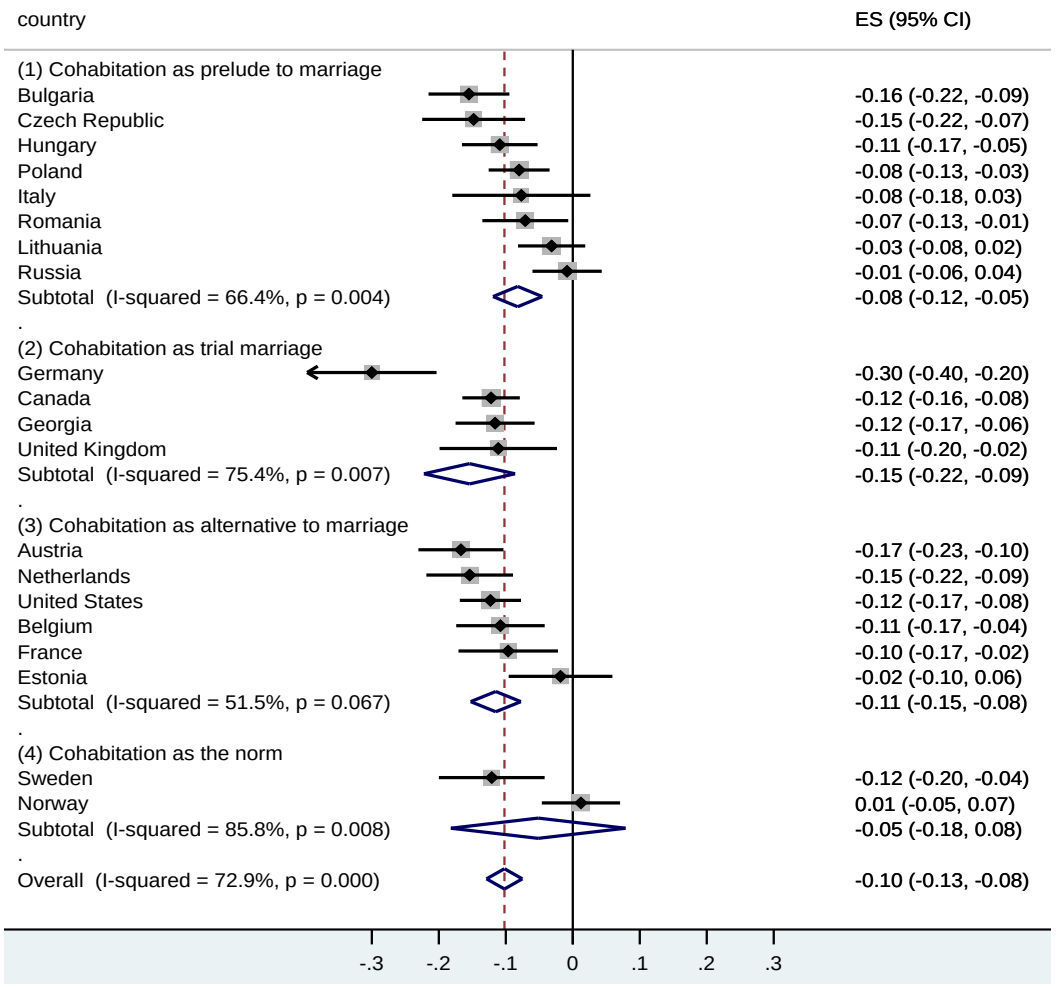


Figure A3.2a. Effect of parental education on marriage when young adults are **not** living together for **women** for 18 European and two North-American countries. Meta-analysis of estimates from discrete- time logistic models.

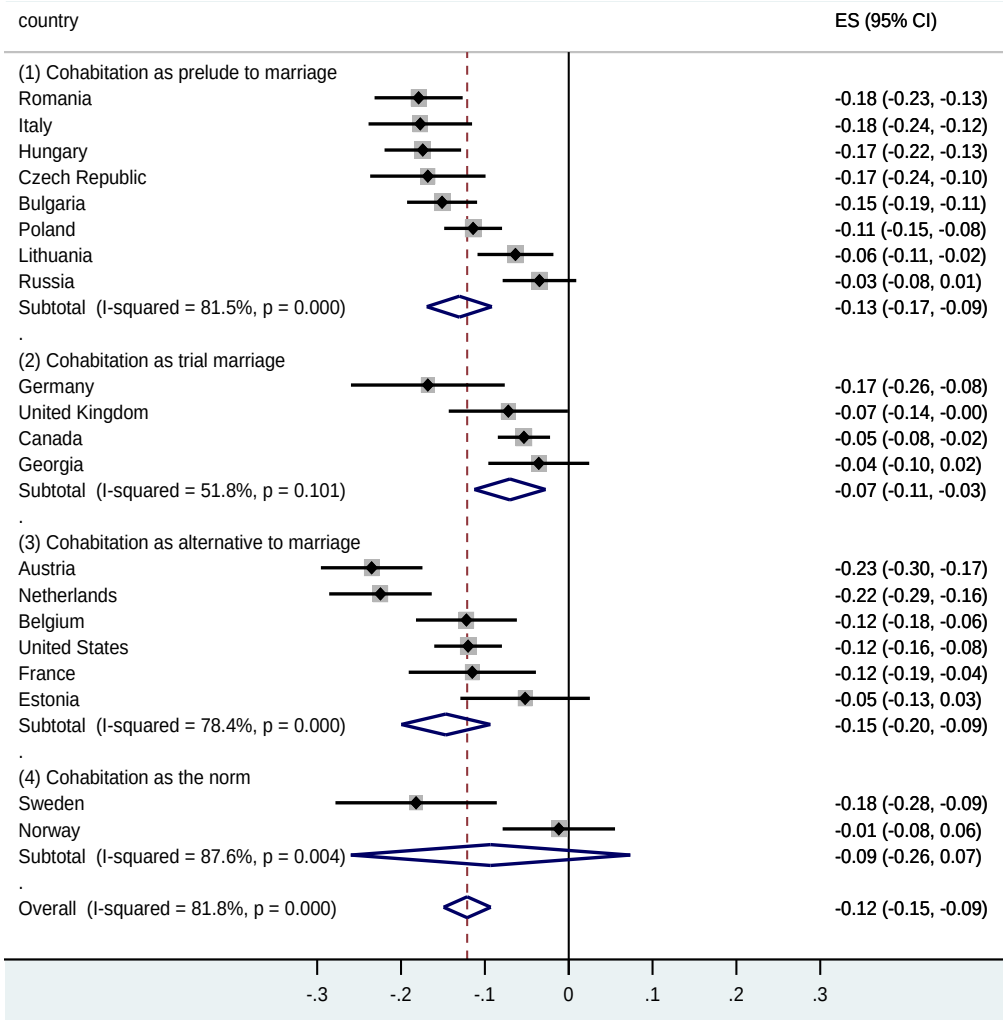


Figure A3.2b. Effect of parental education on marriage when young adults are living together for **women** for 18 European and two North-American countries. Meta-analysis of estimates from discrete- time logistic models.

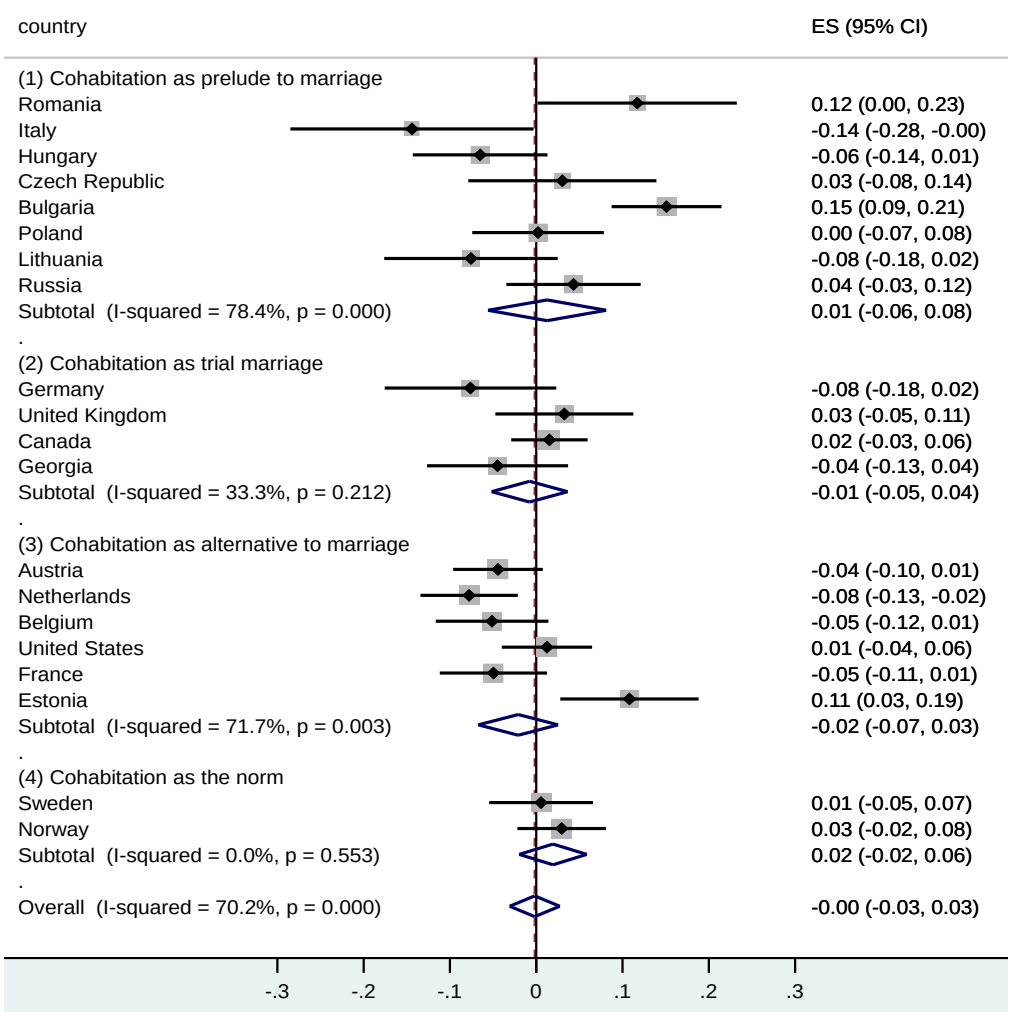


Figure A3.3a. Effect of parental education on marriage when young adults are **not** living together for **men** for 18 European and two North-American countries. Meta-analysis of estimates from discrete- time logistic models.

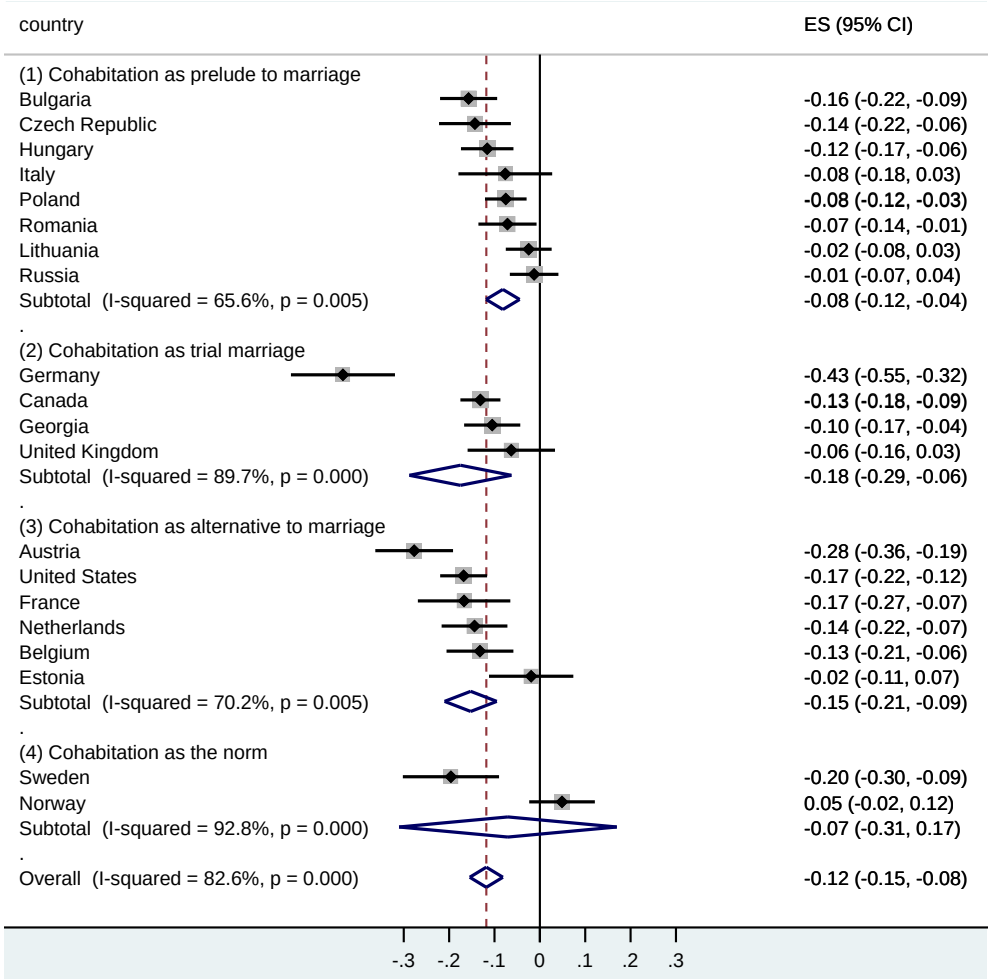
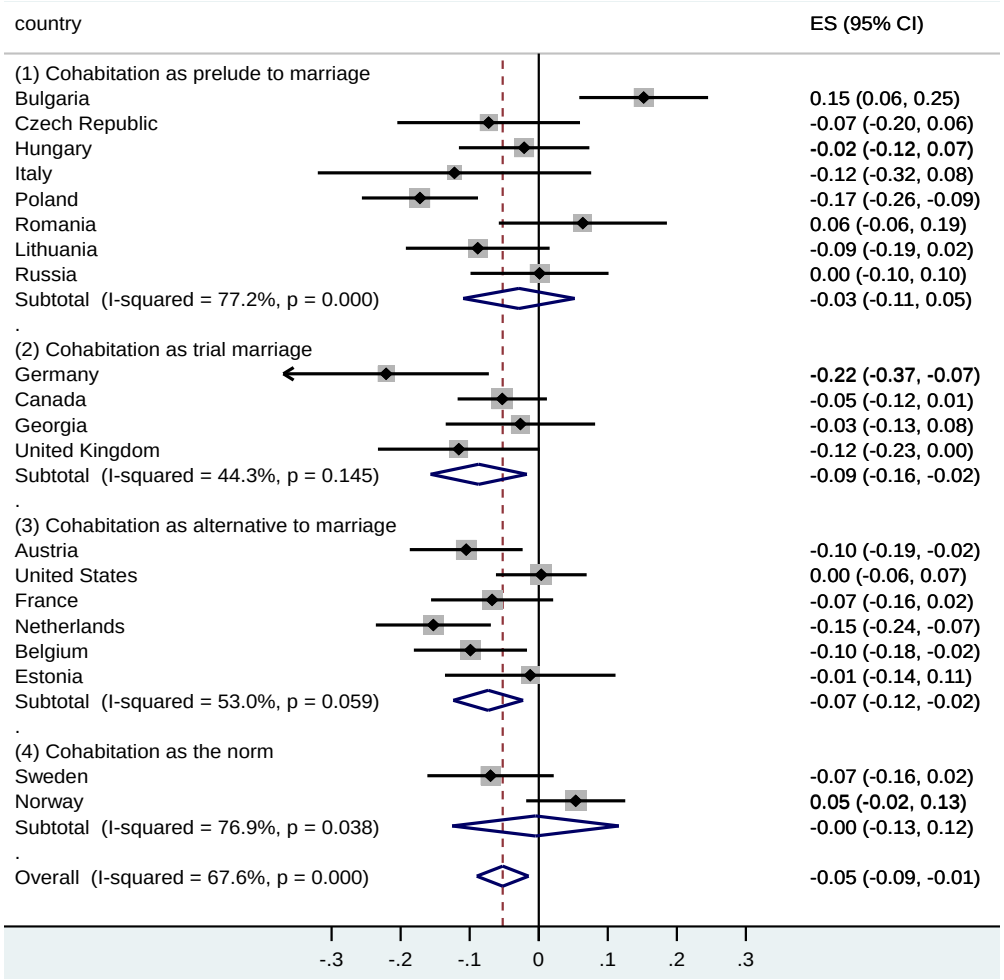
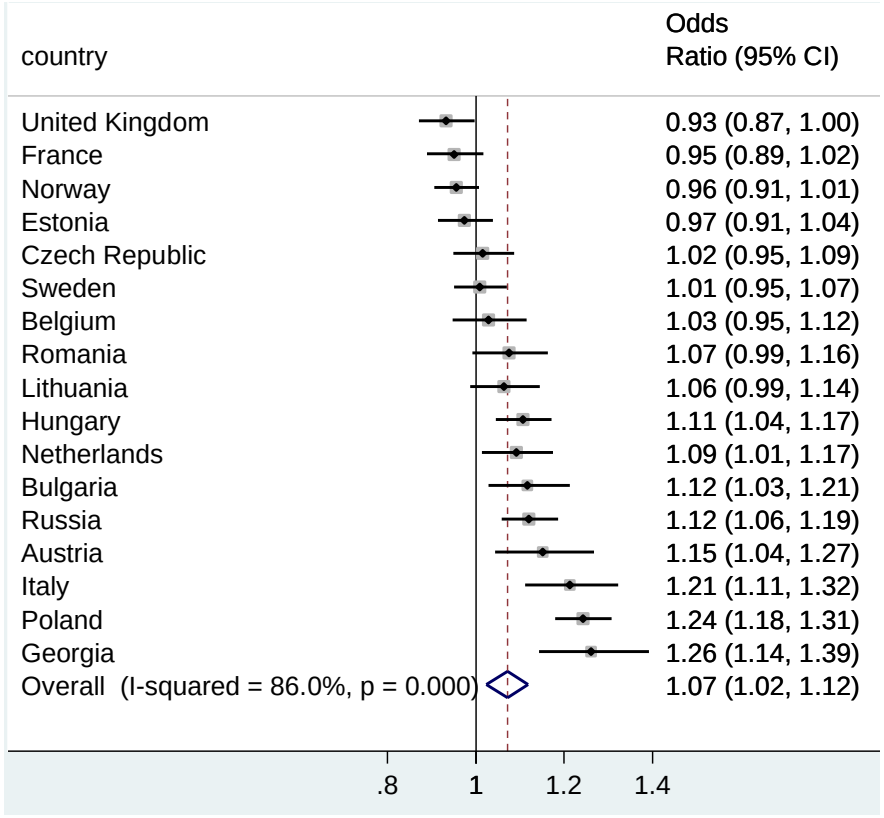


Figure A3.3b. Effect of parental education on marriage when young adults are living together for **men** for 18 European and two North-American countries. Meta-analysis of estimates from discrete- time logistic models.



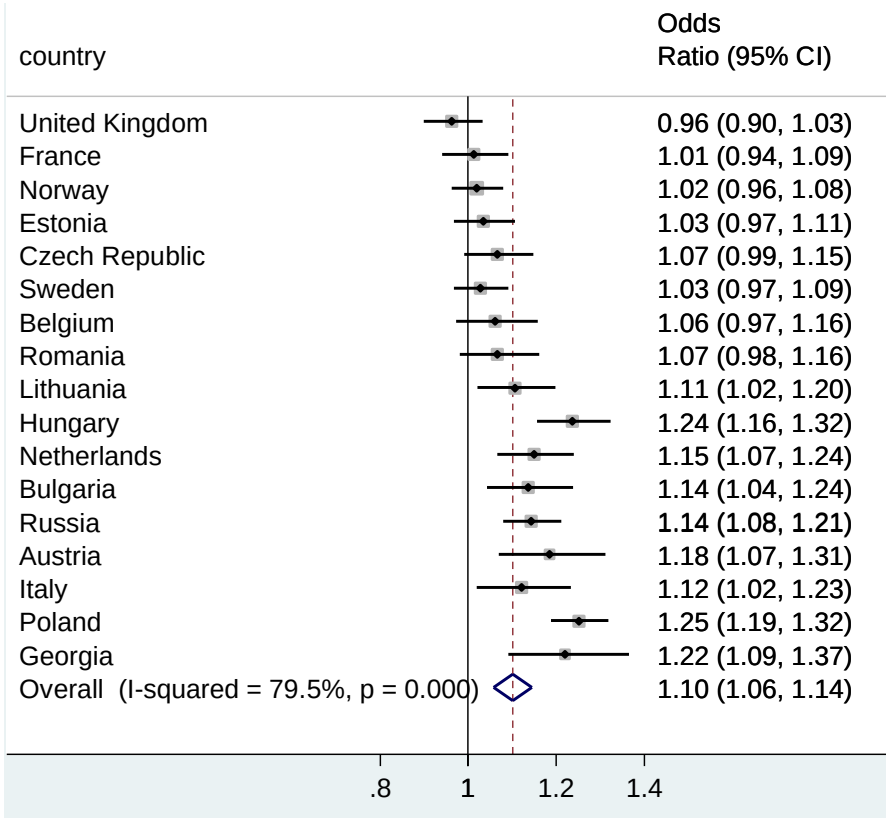
Appendices Chapter 5

Figure A5.1. The association between parental education and family dissolution, controlled for parental separation. Meta-analysis with discrete-time event-history models for 17 European countries (odds ratios and 95% confidence intervals are presented).



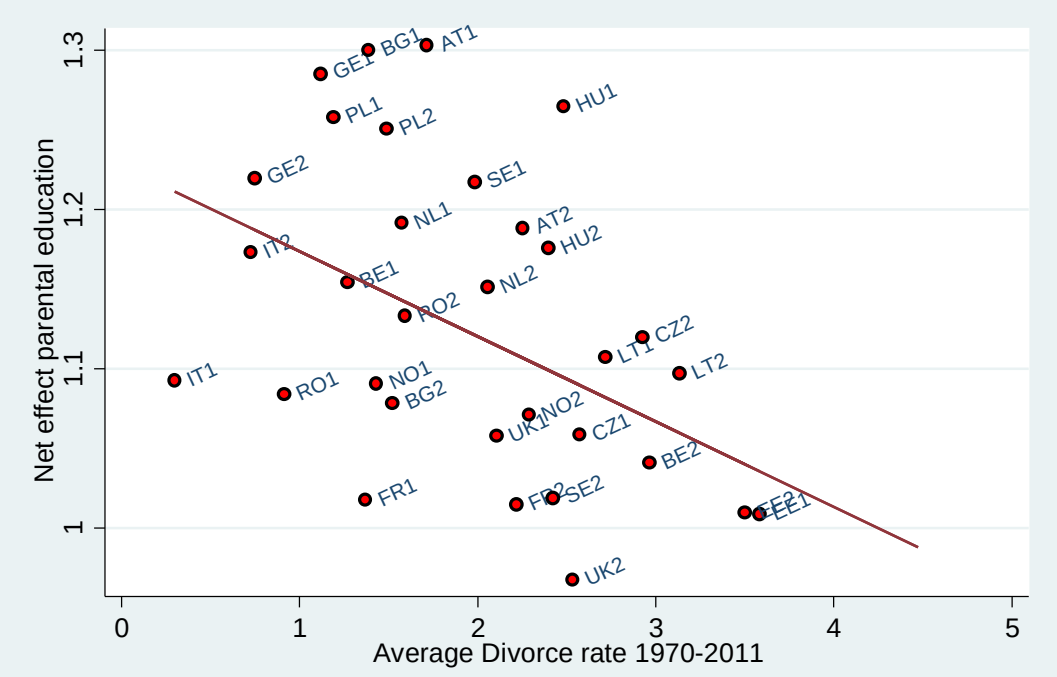
Note: Controlled for gender, year childbearing union started, duration, and duration squared and parental separation.

Figure A5.2. The association between parental education and family dissolution, controlled for parental separation and own education. Meta-analysis with discrete-time event-history models for 17 European countries (odds ratios and 95% confidence intervals are presented).



Note: Controlled for gender, year childbearing union started, duration, duration squared, parental separation and own education.

Figure A5.3. The association between the net effect of parental education and union dissolution, and the average crude divorce rate (without Russia as influential case). *b* = -0.053; *p* = .033.



Note: 1 = old union cohort (1970 – 1987), 2 = young union cohort (1988 – 2013)

Nederlandse samenvatting

De familie van herkomst speelt een belangrijke rol in demografische keuzes die jongvolwassenen maken. Er is veel onderzoek gedaan naar het verband tussen sociaaleconomische condities en woonarrangementen van jongvolwassenen tijdens hun kindertijd en de timing van demografische keuzes van deze jongvolwassenen. Zo blijkt dat jongvolwassenen uit hogere status families later beginnen met hun eerste samenwoonrelatie, hun eerste huwelijk en hun eerste kind dan jongvolwassenen uit families met lagere status. Hiervoor zijn verschillende verklaringen en de belangrijkste is het opleidingsniveau van de jongvolwassene zelf. Ouders met een hogere status hebben hogere opleidingsverwachtingen voor hun kinderen dan ouders met een lagere status. Dit leidt ertoe dat kinderen van hoge komaf gemotiveerd worden om meer en langer te investeren in hun opleidingscarrière, wat vervolgens leidt tot het uitstellen van samenwoonrelaties en kinderen krijgen. Andere verklaringen betrekken zich op de sociaaleconomische status van de ouders. Zo blijken jongvolwassenen van hoge komaf hogere standaards te hebben wat betreft de toekomstige partner en hogere consumptieve ambities te hebben dan jongvolwassenen van lage komaf. Daarnaast socialiseren ouders met een hoge status over het algemeen hun kinderen om op een latere leeftijd aan trouwen en kinderen te beginnen, aangezien zij beter kunnen inschatten wat de negatieve gevolgen zijn van demografische keuzes op jonge leeftijd.

Naast de timing van demografische keuzes blijkt ook de daadwerkelijke keuze, bijvoorbeeld om te gaan samenwonen of te scheiden beïnvloed te worden door ouderlijke status. Hogere opgeleide ouders hebben over het algemeen meer vrijzinnige waarden wat betreft samenwonen of scheiden en zij geven deze waarden door aan hun kinderen.

Niet alleen de familie van herkomst, maar ook instabiliteit van deze families (denk aan gescheiden ouders), blijkt van invloed te zijn op de demografische keuzes van jongvolwassenen. Eerder onderzoek laat zien dat jongvolwassenen met gescheiden ouders vaak eerder uit huis gaan, vaker kiezen voor samenwonen als eerste relatievorming, het huwelijk uitstellen of zelfs helemaal niet trouwen, en vaker zelf scheiden dan jongvolwassenen afkomstig uit intacte gezinnen.

In dit proefschrift onderzoek ik zowel relatievorming (de keuze en timing van samenwonen en trouwen), als relatiebeëindiging. Ik bestudeer hoe de familie of sociale achtergrond van

jongvolwassenen het proces van relatievorming en -beëindiging beïnvloedt. Onder familieachtergrond versta ik zowel de sociaaleconomische status van ouders als de familie instabiliteit. De eerste onderzoeksvraag van dit proefschrift luidt dan ook: *In hoeverre is er een verband tussen de familieachtergrond en de vorming en beëindiging van relaties van jongvolwassenen? En in hoeverre blijft dit verband bestaan als er rekening wordt gehouden met het opleidingsniveau van jongvolwassenen?* Als we antwoord hebben op deze vragen zullen we beter begrijpen hoe sociale ongelijkheden in het familie domein worden geproduceerd en gereproduceerd.

Landenvergelijkend perspectief

Een beperking van het meeste bestaande onderzoek is dat de link tussen familieachtergrond en relatievorming en -beëindiging vaak is onderzocht in één maatschappelijke context, terwijl kan worden verwacht dat deze link varieert tussen landen vanwege economische, culturele en institutionele verschillen tussen landen. Zo kan bijvoorbeeld worden verwacht dat in landen waar de familie meer centraal staat, de invloed van de familieachtergrond sterker is dan in meer individualistische landen.

Om de rol van demografische keuzes bij het produceren en reproduceren van sociale ongelijkheden vanuit een landenvergelijkend perspectief te begrijpen, wordt in dit proefschrift als eerste stap vastgesteld of er landenvariatie bestaat in deze link. De volgende stap is om te onderzoeken hoe deze variatie tussen landen kan worden verklaard vanuit de Tweede Demografische Transitie theorie (zie hieronder). De tweede centrale onderzoeksvraag in dit proefschrift luidt: *In hoeverre bestaat er landenvariatie in de link tussen familieachtergrond en relatievorming en beëindiging? En in hoeverre kan de Tweede Demografische Transitie theorie deze variatie tussen landen verklaren?*

Tweede Demografische Transitie Theorie

In dit proefschrift staat de Tweede Demografische Transitie (SDT: *Second Demographic Transition*) theorie centraal om te verklaren waarom de invloed van familieachtergrond op relatievorming en -beëindiging sterker of zwakker is in het ene land dan in het andere land. De SDT is begonnen in de jaren ’60 en ’70. Primaire trends van deze transitie zijn het uitstellen van trouwen en kinderen krijgen en een toename van samenwonen, scheiden en het krijgen van kinderen buiten het huwelijk. Volgens deze theorie zijn deze demografische trends in de

twintigste eeuw een resultaat van veranderingen in waarden en attitudes, in het bijzonder de overgang van collectieve solidariteit en gerichtheid op de eigen groep naar zelfstandigheid, zelfredzaamheid en autonomie. Door deze waardenveranderingen is ook de invloed van bepaalde socialiserende instituten, met name de kerk en de familie, afgenomen. Door deze processen van individualisering en secularisering zijn jongvolwassenen mogelijk minder afhankelijk geworden van hun ouders en minder gevoelig voor de voorkeuren van hun ouders.

De SDT-theorie beweert dat alle landen de gevolgen van individualisering en secularisering zullen ervaren, maar elk beginnend op een verschillend tijdstip en met een verschillende diffusiesnelheid. Vanwege deze verschillen in de start en snelheid van verspreiding van deze demografische en waarden-gerelateerde veranderingen, verschillen landen in de mate waarin SDT-gerelateerde waarden en gedragingen op een bepaald tijdstip zijn overgenomen. Zweden en Noorwegen worden gezien als de SDT-voorlopers (hoge samenwoon- en scheidingsfrequentie en hoog niveau van individualisering), gevolgd door West-, Oost- en Zuid-Europese landen.

Vanwege verschillen tussen landen met betrekking tot de SDT is de algemene hypothese die in dit proefschrift wordt onderzocht dat de invloed van familieachtergrond op de vorming en beëindiging van relaties door jongvolwassenen zwakker is in landen waar de SDT verder is voortgeschreden.

Data

In dit proefschrift is gebruik gemaakt van twee verschillende landenvergelijkende datasets, namelijk de derde wave van de *European Social Survey* (2006/2007) en de eerste wave van de *Generations and Gender Programme* (GGP). Daarnaast zijn er in sommige hoofdstukken waarin ik gebruik maak van de GGP data nog twee landen toegevoegd, namelijk het Verenigd Koninkrijk en de Verenigde Staten. Deze gegevens komen uit de *Harmonized Histories* dataset, welke vergelijkbaar zijn gemaakt met de GGP data.

In de eerste studie van dit proefschrift, dus **hoofdstuk 2**, heb ik gebruik gemaakt van de ESS data. Deze dataset bestaat uit 25 Europese landen en bevat gedetailleerde informatie over de ouderlijke status en de timing van eerste relatievorming. Aangezien de GGP data gedetailleerdere informatie bevat over de relatiegeschiedenis van respondenten heb ik deze data gebruikt voor de andere hoofdstukken (**hoofdstuk 3 t/m 5**) in dit proefschrift. Daarnaast

was informatie over ouderlijke scheiding en eigen scheiding alleen beschikbaar in de GGP data, waardoor het logisch was om deze data te gebruiken in **hoofdstuk 4 en 5**.

Opbouw en bevindingen van het proefschrift

Hoofdstuk 1 is een synthese van de vier empirische studies die ik, samen met coauteurs, heb geschreven. In dit hoofdstuk beschrijf ik in het kort het doel van dit proefschrift, de theoretische achtergrond en geef ik een overzicht van de vier studies en de belangrijkste bevindingen. Daarnaast beschrijf ik de algemene conclusies en discussies, die voortkomen uit de vier studies.

De onderzoeksvragen worden beantwoord in de vier empirische hoofdstukken. In **hoofdstuk 2** richt ik mij op de invloed van ouderlijke status op de timing van eerste samenwoonrelatie en het type relatie (samenwonen of trouwen) vanuit een landenvergelijkend perspectief. Ouderlijke status is gemeten door een index gebaseerd op informatie over het opleidingsniveau en beroep van beide ouders. In overeenstemming met voorgaand onderzoek stellen jongvolwassenen met een hoger ouderlijke status hun eerste samenwoonrelatie vaker uit dan jongvolwassenen met lagere ouderlijke status. Ook blijkt uit deze studie dat dit vertragende effect van ouderlijke status op de timing van eerste samenwoonrelatie met name veroorzaakt wordt door jongvolwassenen die gelijk trouwen als ze gaan samenwonen. Maar het vernieuwende aspect van deze studie is het landenvergelijkende perspectief. Op basis van de theorie van de Tweede Demografische Transitie (SDT) was de hypothese dat de invloed van ouderlijke status op relatievorming zwakker is in landen die verder ontwikkeld zijn in de Tweede Demografische Transitie. We hebben drie verschillende SDT-indicatoren gebruikt, namelijk de prevalentie van samenwonen, niveau van religiositeit en de leeftijdsnorm om uit huis te gaan. Op basis van een meta-analytische benadering hebben we ten eerste onderzocht of er variatie tussen landen was in de link tussen ouderlijke status en relatievorming en vervolgens geanalyseerd of de genoemde SDT-indicatoren een verklaring waren voor deze landenvariatie. Sommige van deze indicatoren waren een verklaring voor de gevonden landenvariatie in de link tussen familieachtergrond en relatievorming (namelijk prevalentie van samenwonen en de leeftijdsnorm om uit huis te gaan), terwijl religiositeit de variatie niet kon verklaren. Wat ook is meegenomen in deze studie is het opleidingsniveau en het daadwerkelijk in het onderwijs verkeren van de jongvolwassene. Dit is een belangrijke mediator in de link tussen ouderlijke

status en relatievorming en dat laat ook deze studie zien. Echter blijkt uit de resultaten van deze studie dat na toevoeging van opleidingsniveau van de jongvolwassene zelf, er nog steeds een invloed van ouderlijke status op de timing van eerste samenwoonrelatie blijft bestaan, maar dat de landenvariatie helemaal verdwijnt.

In **hoofdstuk 3** focus ik mij weer op de invloed van ouderlijke status, dit keer gemeten aan de hand van ouderlijke opleidingsniveau, maar onderzoek ik de timing van het eerste huwelijk. Ook in dit hoofdstuk wordt deze link vanuit een landenvergelijkend perspectief onderzocht en wordt een meta-analytische benadering gebruikt om te analyseren of er landenvariatie bestaat en hoe deze verklaard kan worden. De resultaten laten zien dat, in overeenstemming met eerder onderzoek, jongvolwassenen met hoogopgeleide ouders later trouwen dan jongvolwassenen met laagopgeleide ouders. Aangezien uit de eerste studie (hoofdstuk 2) bleek dat het opleidingsniveau van de jongvolwassene zelf een belangrijke mediator is, hebben we deze ook meegenomen in deze studie. Maar ook uit de resultaten van deze tweede studie blijkt dat na toevoeging van het opleidingsniveau van de jongvolwassene zelf, er nog steeds een invloed van ouderlijke status op de timing van eerste huwelijk blijft bestaan. Dus naast iemands eigen status, is ook de status van je ouders van invloed op de demografische keuzes die je maakt. Een belangrijke toevoeging van deze studie in vergelijking met eerdere studies is de samenwoongeschiedenis van de jongvolwassene. Er kan worden verwacht dat de invloed van ouderlijke status op de timing van eerste huwelijk zwakker wordt als jongvolwassenen eenmaal samenwonen en de bevindingen van deze studie bevestigen dit inderdaad. Daarnaast laten de resultaten zien dat er aanzienlijke landenvariatie is in de link tussen ouderlijke status en eerste huwelijk, ook als er is gecontroleerd voor eigen opleidingsniveau en hebben we onderzocht of dit verklaard kan worden door de Tweede Demografische Transitie (SDT) theorie. In deze studie hebben we op landniveau een samenwoontypologie gemaakt, gebaseerd op verschillende SDT-gerelateerde items (prevalentie van samenwonen, proportie van buitenechtelijke geboortes en proportie van mensen die getrouwd of gescheiden zijn binnen twee jaar). Echter verklaart deze samenwoontypologie niet de landenvariatie in de link tussen ouderlijke status en eerste huwelijk.

In **hoofdstuk 4** onderzoek ik de invloed van een andere dimensie van familieachtergrond, namelijk ouderlijke scheiding, en hoe ouderlijke scheiding het relatievormingsproces van jongvolwassenen beïnvloedt. In deze derde studie wordt zowel

eerste relatievorming (samenwonen versus trouwen) als eerste huwelijk onderzocht. We verwachtten dat jongvolwassenen met gescheiden ouders minder vaak zullen trouwen en juist vaker zullen samenwonen en dit is ook wat we terugvinden in deze studie. Deze jongvolwassenen worden vaak gezien als de voorlopers op familie veranderingen (denk aan de toename van samenwonen en buitenechtelijke geboortes) en de de-institutionalisering van het huwelijk. In deze studie onderzoeken we, net als in de eerdere studies, of bepaalde landenkenmerken of SDT-indicatoren die de link tussen ouderlijke scheiding en relatievorming mogelijk modereren. Het eerste landkenmerk die in deze studie gebruikt wordt, is de incidentie van ouderlijke echtscheiding; hier wordt verwacht dat de invloed van ouderlijke scheiding op relatievorming zwakker wordt wanneer ouderlijke scheiding in een land vaker voorkomt. In deze studie vinden we voor deze hypothese geen bevestiging. Het tweede landkenmerk is de frequentie van buitenechtelijke geboortes als indicator voor de sterkte van het huwelijk als institutie. De hypothese hier is dat als trouwen nog echt de norm is in een land, dat de invloed van ouderlijke scheiding op relatievorming klein is. Echter, hoe meer samenwonen wordt geaccepteerd, des te groter de verschillen worden tussen jongvolwassenen met gescheiden ouders en jongvolwassenen van intacte families wat betreft relatievorming, aangezien jongvolwassenen met gescheiden ouders worden gezien als voorlopers. Als samenwonen helemaal geaccepteerd is in een land en wordt gezien als de norm, dan kan worden verwacht dat het verschil tussen jongvolwassenen met gescheiden ouders en jongvolwassenen van intacte families weer kleiner wordt. Resultaten van deze studie tonen aan dat jongvolwassenen met gescheiden ouders kunnen worden gezien als voorlopers; deze jongvolwassenen kiezen vaker voor samenwonen als eerste relatievorm, ook als trouwen nog sterk geïnstitutionaliseerd is. Het verschil tussen jongvolwassenen uit intacte en gescheiden gezinnen in de kansen om te gaan samenwonen of te gaan trouwen, wordt kleiner naarmate samenwonen meer geaccepteerd wordt. Ook wat betreft trouwen zijn jongvolwassenen met gescheiden ouders voorlopers; naarmate de de-institutionalisering van het huwelijk vordert, zijn het deze jongvolwassenen die zich als eerste compleet terugtrekken van het huwelijk.

In de vierde en laatste empirische studie van dit proefschrift, **hoofdstuk 5**, richt ik mij op relatiebeëindiging in plaats van relatievorming. De link tussen ouderlijke scheiding en de kans om zelf te scheiden (intergenerationele overdracht van scheiden) is al meerdere keren onderzocht in eerder onderzoek, zowel in afzonderlijke landen als landenvergelijkend. Maar

naar de link tussen ouderlijke status en relatiebeëindiging is nog niet landenvergelijkend onderzoek gedaan, dus daarom focus ik mij hierop in deze vierde studie van dit proefschrift. Ouderlijke status is gemeten aan de hand van ouderlijk opleidingsniveau en we hebben gekeken naar de beëindiging van een relatie (samenwonen of trouwen) waarbij kinderen betrokken zijn. Het kan worden verwacht dat individuen van hoge komaf een hogere kans hebben om te scheiden omdat in hogere status milieus scheiden meer is geaccepteerd of meer financiële hulp vanuit de ouders kan worden geboden om de gevolgen van scheiding op te vangen. De resultaten van deze studie bevestigen inderdaad deze hypothese, zelfs nadat belangrijke mediators zijn meegenomen, namelijk het eigen opleidingsniveau, ouderlijke scheiding en de timing van de relatievorming. Wat betreft het landenvergelijkend perspectief hebben we in deze studie weer gebruik gemaakt van de meta-analytische benadering, dus eerst onderzocht of er landenvariatie is en dan onderzocht hoe deze verklaart kan worden. De twee landenindicatoren die zijn meegenomen in deze studie zijn het gemiddelde scheidingspercentage en de generositeit van de verzorgingsstaat. We verwachtten dat de link tussen ouderlijke status en relatiebeëindiging zwakker is in landen waar het verzorgingsregime relatief vrijgevig is, aangezien financiële hulp van ouders dan minder nodig is. Daarnaast verwachtten wij ook dat deze link zwakker is in landen waar scheiden meer gebruikelijk is (dus met hoge scheidingspercentages). De resultaten van deze vierde studie bevestigen deze laatste hypothese, dus de invloed van ouderlijke status op relatiebeëindiging is zwakker in landen waar scheiden meer gebruikelijk is. De andere landenindicator (vrijgevigheid van het verzorgingsregime) kon de variatie in de link tussen ouderlijke status en relatiebeëindiging niet verklaren.

Uit dit proefschrift kunnen drie belangrijke conclusies worden getrokken. Ten eerste, terugkomend op de eerste onderzoeksvraag, kan geconcludeerd worden dat familieachtergrond een belangrijke invloed heeft op zowel relatievorming als -beëindiging. De resultaten uit dit proefschrift laten zien dat zelfs als er gecontroleerd wordt voor het opleidingsniveau van de jongvolwassenen zelf, ouderlijke status nog steeds van invloed is op relatievorming en -beëindiging. Ten tweede, terugkomend op de tweede onderzoeksvraag, laat dit proefschrift zien dat de link tussen familieachtergrond en relatievorming en -beëindiging sterk varieert tussen landen. In elke studie vinden we aanzienlijke landenvariatie, dus dit proefschrift laat zien dat het zeker belangrijk is om rekening te houden in welk land

jongvolwassenen wonen bij het analyseren van de link tussen familieachtergrond en relatievorming en -beëindiging. Ten derde heb ik in dit proefschrift de Tweede Demografische Transitie (SDT) theorie als een belangrijke bron van uitleg gebruikt om de landenvariatie te verklaren, maar zonder veel succes. Ik heb verschillende SDT-indicatoren gebruikt en de resultaten van de studies laten inderdaad zien dat sommige indicatoren de variatie in de link tussen familieachtergrond en relatievorming en -beëindiging verklaren. Echter moet ik wel concluderen dat de SDT-theorie niet de complete verklaring is voor de gevonden landenvariatie. Het verklaren van de landenvariatie is gecompliceerder dan alleen te focussen op land-specifieke demografische en waardenveranderingen, voortkomend uit processen van individualisering en secularisering. Ook institutionele en economische landkenmerken kunnen mogelijk een rol spelen en verklaren waarom de invloed van familieachtergrond op relatievorming en -beëindiging sterker of zwakker is in het ene land dan in het andere land.

Dankwoord

Als ik dit schrijf, heb ik net zelf weer een belangrijke levenslooptransitie meegemaakt, namelijk het krijgen van ons tweede kindje. Ik heb het altijd erg bijzonder gevonden dat ik verschillende levenslooptransities van jongvolwassenen onderzocht, terwijl ik zelf ook in deze fase van mijn leven zat. Gedurende mijn PhD project heb ik verschillende levenslooptransities meegemaakt. Zo ben ik getrouwd met Jan, waar ik al sinds de middelbare school verkering mee had en waarmee ik eerst een aantal jaar heb samen gewoond, en hebben we samen twee prachtige dochters gekregen. Tijdens het doorlopen van deze levenslooptransities heb ik mij vaak afgevraagd of de bevindingen uit mijn onderzoek ook op mijn persoonlijke leven van toepassing zijn. Ik heb mezelf dus geregeld afgevraagd of de sociaal-economische status van mijn ouders of het feit dat ik uit een intacte familie kom, van invloed zijn geweest op de keuzes die ik zelf heb gemaakt als jongvolwassene. Of dit zo is, weet ik nog steeds niet goed, want puur kijkend naar mijn familieachtergrond zou ik toch echt later aan samenwonen, trouwen en kinderen zijn begonnen. Ook was het tijdens mijn promotietraject altijd erg fijn dat als mensen aan je vroegen waar mijn proefschrift over ging, dat iedereen dit goed begreep omdat de meeste mensen romantische relaties vormen.

Ik ben me heel goed bewust van het geluk dat ik mijn proefschrift heb mogen schrijven onder begeleiding van twee geweldig slimme en enthousiaste mannen. Aat en Harry, ik heb met zoveel plezier met jullie samengewerkt. Jullie waren een goed duo, die elkaar mooi aanvulden. Aat, jij was mijn dagelijkse begeleider waar ik altijd binnen kon lopen, hoe groot of klein de vraag ook was. Jouw opbouwende kritiek, geduld en de rust die je altijd uitstraalt, heb ik enorm gewaardeerd. Je hebt me veel geleerd op het gebied van wetenschappelijk onderzoek doen en hebt me altijd de ruimte gegeven om ook andere dingen, zoals onderwijstaken of OC-lid, naast mijn PhD project te doen. Je had heel goed door dat ik dit nodig had en dat deze taken mij energie gaven. Bedankt hiervoor! Harry, jij hebt me altijd uitgedaagd om nog net iets verder te gaan in het analyseren of uitwerken van mijn onderzoek. Je was altijd kritisch, maar ik heb erg veel geleerd van je scherpe analytische blik en je uitgebreide methodische kennis. Wat mij altijd bij zal blijven van onze gesprekken met z'n drieën is dat het eigenlijk altijd gezellig was. We hebben erg veel gelachen en dat maakte dat ik nooit opzag tegen jullie

feedback op mijn stukken. Aat en Harry, bedankt voor jullie tijd, steun en vertrouwen en het delen van jullie wetenschappelijke kennis, maar ook zeker jullie levenservaring.

Next to Aat and Harry, also many thanks to Juho! In 2016 I went to Stockholm University for an internship there and although I was only there for 3 months, I learned a lot. You always made time available to talk about our paper and about related and unrelated matters. Juho, thanks for your hospitality and confidence. I have enjoyed working with you, which has led to two successful papers and I hope to work with you more often in the future.

Ik heb mijn proefschrift geschreven op het NIDI en ik heb dit altijd als een erg fijne werkplek ervaren. Ondanks dat Den Haag een aardig eind reizen was voor mij, ging ik altijd met plezier naar mijn werk en dit had mede te maken met de aardige collega's die ik hier heb leren kennen. Mijn dank gaat allereerst uit naar mijn kamergenoot en CONOPP collega Judith. We begonnen dit avontuur tegelijk en wat ben ik blij dat ik dit met jou heb mogen beleven. Samen op het kleine zolderkamertje, samen naar conferenties en summer schools, samen de moeilijkste analyses draaien. Bij jou kon ik altijd terecht voor een goede raad, een peptalk, of gewoon een gezellig praatje. Judith, bedankt dat je mijn paranimf wil zijn! Zonder de andere mensen van de CONOPP groep had ik het ook niet gered; Mioara, Nicole, Joanne, Sapphire en Jarl, dank jullie wel voor jullie steun, feedback en onderlinge support de afgelopen jaren. We zaten allemaal in hetzelfde schuitje waardoor er altijd wel iemand was waar je even op terug kon vallen als je er doorheen zat. Ook iedereen van de themagroep 'Families & Generaties' en de SILC groep bij de VU bedankt voor de inhoudelijke feedback en de gezellige meetings. Ellen en Leonie, ik wil jullie ook nog even apart bedanken! Jullie waren top collega's, altijd bereid om me te helpen, altijd tijd voor een praatje of een wandelingetje. Inmiddels zijn we goede vriendinnen en daar ben ik enorm blij mee. Hanna, Tineke, Ingrid, Nicole, Karin, Anne, Nico, Amriet, Jacqueline en Jeannette, onderweg naar mijn kleine zolderkamertje op het NIDI kwam ik ook geregeld even bij jullie langs voor een praatje, bedankt voor alle gezelligheid! Er zijn vast nog collega's die ik ben vergeten te bedanken, dus bij deze, NIDI collega's bedankt!

Zoals ik eerder al noemde zou het feit dat mijn ouders hoogopgeleid zijn en nog steeds gelukkig getrouwd zijn moeten betekenen dat ik niet al te vroeg zou gaan samenwonen, trouwen en kinderen krijgen. Bij mij is dit niet opgegaan, ik ben op jonge leeftijd gaan

samenwonen met Jan en ook met trouwen en kinderen krijgen was ik er redelijk vroeg bij. Mijn ouders hebben mij andere normen en waarden meegegeven wat betreft de timing van relatievorming. Zij waren zelf ook erg jong toen ze trouwden en mij kregen en ik heb dit altijd als iets heel positiefs ervaren. Daarnaast stonden mijn ouders altijd achter mij, wat voor keuze ik ook maakte. Pap en mam, bedankt voor jullie onvoorwaardelijke steun in de afgelopen jaren! Jullie staan altijd voor mij klaar en dat is echt fantastisch. Ook mijn zusjes, broertje, zwager en schoonzusje en schoonfamilie wil ik enorm bedanken voor jullie steun, maar vooral voor de gezelligheid en liefde die jullie mij altijd hebben gegeven. Ik hoop nog heel veel gezellige weekenden, vakanties en uitjes met z'n allen mee te maken.

Buiten mijn werk en familie, ben ik ook enorm gezegend met hele lieve vrienden en vriendinnen die regelmatig voor de nodige afleiding zorgden. Al noem ik niet iedereens naam, deze vriendschappen zijn erg belangrijk voor mij en ik hoop dat ik in het dagelijks leven vaak genoeg laat blijken hoe blij ik met je ben zodat er nu geen twijfel over bestaat dat ik ook jou bedoel.

En last, but zeker not least, wil ik mijn eigen gezinnetje bedanken. Jan, op de momenten dat ik het even helemaal niet meer zag zitten, was jij er altijd voor mij. Jouw onnavolgbare relativeringsvermogen en geduld brengen mij tot rust en geven me nieuwe energie om door te gaan. Na een lange reis terug naar huis vanuit Den Haag, stond het eten altijd klaar en luisterde je naar wat ik die dag weer had meegemaakt. Je bent mijn steun en toeverlaat en daarom ben ik ook heel blij dat jij mijn paranimf bent. Tijdens mijn promotietraject ben je naast mijn man, ook de vader van mijn kinderen geworden, en ik kan me geen betere man en papa voor Elin en Yara voorstellen dan jij! Elin en Yara, jullie zijn nu nog te klein om dit begrijpen, maar ook jullie wil ik bedanken. Als ik thuis kwam na een lange dag werken, zorgden die lach op jullie gezicht ervoor dat ik alles om mij heen vergat. Door jullie heb ik geleerd dat er meer in het leven is dan onderzoek doen. Jan, Elin en Yara, jullie maken mijn leven mooier!

Anne Brons

Ermelo, november 2019

Curriculum Vitae

Anne Brons was born on April 26, 1990 in Ermelo, the Netherlands. In 2008, she received her VWO diploma at Christelijk College Groevenbeek in Ermelo. After that, she studied at Utrecht University where she completed the bachelor Sociology in 2011. During this bachelor program, she also did a minor Journalism at the University of Groningen and a minor Criminology at Utrecht University. In 2013, she finished the research master program 'Sociology and Social Research' at the same university. During her studies, she worked as a student assistant at the Sociology department of Utrecht University. After finishing her master, Anne worked at the University of Amsterdam as a project assistant within a project called 'Big Data' & 'Media Exposure'. From March 2014 onwards, Anne was employed as a PhD student at the Netherlands Interdisciplinary Demographic Institute (NIDI-KNAW) in The Hague. Her PhD project was part of an ERC-funded project, called 'Context of Opportunity' (CONOPP), for which she helped harmonize Generations and Gender Survey data. During her PhD, she has been involved in teaching bachelor and master students both at the University of Groningen and the VU University Amsterdam. In 2018, she started at research bureau APE in The Hague where she worked for a year as a quantitative researcher. Currently, she is employed as a postdoctoral researcher in the department of Sociology at Utrecht University on a NWO-funded VICI project called 'Family diversity after divorce and outcomes for children and parents'.