## European Studies of Population 21

## Dimitri Mortelmans Editor

# Divorce in 

Europe
New Insights in Trends, Causes and Consequences of Relation Break-ups

European Studies of Population

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Dimitri Mortelmans

Editor

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New Insights in Trends, Causes and Consequences of Relation Break-ups

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IN MEMORY OF
JaAP Dronkers
1945-2016

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# Chapter 1 <br> Introduction 

Dimitri Mortelmans


#### Abstract

This book gathers studies from across Europe and Israel. It present the latest insights in studies on family dynamics from a European perspective. The book covers both macro and micro level studies and deals with causes and consequences of uncoupling. The long-term research agenda for divorce researchers is promising and bursting with new opportunities, new challenges and new exciting discoveries to be made. This book is a first step in this direction showing the newest developments collected in one volume.


Keywords Divorce • Europe • Causes of divorce • Consequences of divorce

## In memory of Jaap Dronkers - "do you mind if I briefly interrupt?"...

... with a story that starts in Florence, November 2002. Jaap Dronkers, Matthijs Kalmijn, and Michael Wagner founded the European Network for the Sociological and Demographic Study of Divorce. Its mission: "to gather European researchers working on relationship dissolution". The first and soon to be annual Divorce Conference was attended by 30 researchers, presenting and discussing their work on the causes and consequences of divorce in both national and international comparative perspectives. The network quickly grew in size as more and more researchers saw the benefits of mutual exchange and dialogue. Over the years, colleagues from Europe, the US, Canada, Australia, and South Africa have presented their work at the conference. As of 2019, the network is called "EUDIV - The European Divorce Network". This volume collects work from over 30 authors from more than 10 countries on a wide range of themes surrounding relationship dissolution. It is therefore only fitting that it opens by paying homage to one of our founding fathers.

This book is dedicated to Jaap Dronkers. It is impossible to overstate his influence on the continuing expansion of both the field of dissolution research and our

[^0]network. Jaap was not only a divorce researcher, he was also active in sociology of education, in elite studies and an often heard voice in the Dutch public debate. His sudden passing on the 30th of March 2016 sent shockwaves through many academic circles, not in the least our own. We will remember Jaap as the driving force behind the network, with relentless energy that resulted in volunteers throughout Europe to organize the Divorce Conference and to continuously exchange our knowledge on relational break-ups. During our meetings, Jaap's finger was always the first to be raised, often before the presentation had ended. Numerous young researchers have been stimulated by his supportive comments or his recommendations. He inspired many experienced researchers, post-docs and professors to push themselves to the limit in their analyses. It falls to me as editor, in name of all authors of this book and members of the network, to honour Jaap Dronkers and thank him for the contributions he made to our field as a source of inspiration, as a colleague, and as a friend.

### 1.1 Divorce Research in Europe

This volume is entitled Divorce in Europe and gathers studies from across Europe and Israel. The book connects two crucial concepts that are at the heart of our network: divorce and Europe. We focus on divorce as the phenomenon of interest. In its strictest form, divorce is the legal dissolution of a marriage. It is captured in official statistics and can be compared across countries. As will be shown in the first part of this book, figures on divorce rates have been on the rise for decades and seem to be levelling off or have started to decline in recent years for some countries. On the other hand, divorce can also be understood as the sociological phenomenon of uncoupling that incorporates much more realities than its strict legal significance might reveal. A first source of heterogeneity underlying the concept of divorce is who is divorcing? When this field of inquiry started to develop, this question was easily answered by referring to a heterosexual couple that dissolved their marriage. Currently, many countries have opened up marriage to include homosexual couples, who also face divorce. Furthermore, marriage has lost its central place as cohabitational splits entered the scope of divorce researchers. Even though we still use the term divorce, it is no longer the exclusive decoupling of married spouses. Rather, it became an umbrella term for all uncoupling processes, irrespective of gender composition or legal bond.

Second, we do not only take into account who is divorcing but also the moment a divorce is occurring. Divorce is not a moment in time, but a process which leads to heterogeneity in the way studies treat the ending and the beginning of a relationship (Demo and Fine 2015). Marital quality in a relationship deteriorates and conflicts may rise or partners may estrange from each other. Even though sociologists and demographers often consider the split of a relationship as a discrete phenomenon, i.e. an event in daily life, ending a long-term relationship is far from a single event. For methodological feasibility, either the moment a partner moves out or the legal divorce (if any) is considered as the actual moment of breaking up. But not only the
end of the marriage is a source of unclarity. Where does one start when recording the length of a relationship? From the moment two people acknowledge their relationship as being romantic in nature? From the moment they move in together? Or from the moment they officially marry? Or is it whichever comes first? In times of tv shows like "married at first sight", one can even be married before having a romantic relationship with one's spouse. Whether or not a dating period is taken into account or not, can be important for considering the actual length of a relationship we see dissolve. The temporal dimension of divorce is complex and multifaceted and therefore should be studied as such. Although, data limitations will again continue to limit our potential options in real life modelling.

On top of these coresidential (who), or temporal (when) dimensions, we also need to consider the life course perspective in coupling and uncoupling. When discussing divorce, the impression could be raised that people have one long-term relationship, married or not, which might be dissolved somewhere during the life course. In reality, life, but also the heart will go on. Repartnering is inherent to the life course of formation and dissolution of partnerships. When new partners enter the life course, new love but also new conflicts may arise potentially resulting in higher order break-ups (and more new partnerships). As divorce is often regarded as something people experience only once, we do yet not have much insight in these subsequent processes of bonding and unbonding. At present, divorce research is predominantly focussed on divorce as a singular term despite the plurality of the concept.

Defining and delineating the concept of divorce in itself clearly reveals the complexities to be solved before we can actually start studying the phenomenon. These intricacies only multiply when we move past the process or the event itself. The field of divorce studies is divided into three domains: causes, processes and consequences of divorce. Not all fields have been developed to the same degree. For example, we have little in-depth insights in the process of divorce. Most findings concern the economic, psychological and social consequences of divorce for potential actors involved: adults, parents, grandparents, children and networks of friends and relatives. The field of antecedents is also widely documented with classic determinants as educational level or parental divorce (intergenerational inheritance of a break-up risk) and more surprising ones like mobile phone penetration (Zhang et al. 2018) or special marriage dates (Kabátek and Ribar 2018). A comprehensive overview of all known causes, processes and consequences of divorce is beyond the scope of this introduction. For example, in their 1991 meta-analysis, Amato and Keith (1991) identified eight domains of consequences of divorce on children, additionally influenced by several socio-demographic background characteristics. Summarizing them all would require a volume in itself. We therefore refer the interested reader to some excellent overview articles on causes of divorce (Lyngstad and Jalovaara 2010), or consequences (Amato 2000, 2014; Amato and James 2010).

The second central element in the title of the book is Europe. As we have outlined at the start of this introduction, the book gathers research from Europe and Israel, because it grew out of the yearly European Divorce conference. Even though the European research tradition on divorce came long after that of the US, and even
though the encyclopedia of divorce (Emery 2013) showed that divorce is a worldwide phenomenon present in every country around the globe, we do believe that the European context, with all its heterogeneity, is an interesting one for scholars studying a phenomenon like divorce. First, the macro perspective shows that divorce trends are evolving at a different pace across Europe and started in different time periods. This is not only true for the north-south gradient with Scandinavia as the forerunner and southern Europe as a region characterised by more stable marriages. As will be shown in this volume, also Eastern Europe does not show a uniform pattern in divorce figures, even though the end of the Communist Era is a period effect affecting all them at the same time. Even the mere legal recognition of divorce shows a great disparity, with Malta being the final European country in 2011. This last point shows the relevance of the legal context of divorce in Europe. Even though all countries have adopted the possibility for marriages to dissolve, the procedures to do so are quite different. In a country like Italy the separation-divorce dichotomy is preserved. In other countries, the no-fault divorce has been introduced while among them, legal inertia or administrative speed determines the timing of a divorce. Second, differences are not only relevant on the macro-level. At the micro-level, the composition of marriages and cohabitations (Wagner and Weiß 2006) or the determinants of divorce like education level differ to a great extent across Europe (Harkonen and Dronkers 2006). Many single-country and comparative studies have shown that causes and consequences of divorce often run parallel (e.g. in US and Europe) but certainly not always (Amato and James 2010). In-depth comparative studies are still needed to disentangle the puzzle of interwoven complexities. The cultural and structural dimensions across Europe that both shape different pathways out of a relationship will be of particular importance in future research.

Before turning to a potential future of European divorce research, we offer a brief overview of this volume. We present new insights in divorce and relationship dissolution, inspired by, and guided by the European Divorce Network.

### 1.2 This Volume

The volume is divided into five parts. Each part considers a different dimension of relational break-ups. We begin with a macro approach looking on divorce trends, followed by four parts with micro-level studies. These studies either consider the antecedents of divorce or its consequences. The number of chapters dealing with consequences were further classified as based on the population of interest, i.e. consequences for adults, for children and for the parent-child relationship.

Part I introduces a new strand of research in the field. For several years, we observed that divorce rates have more or less plateaued in several countries. Some countries even show declining divorce trends. The question arises: what we are actually observing? Is this a signal that marriages, or even relationships in general, have started to become more stable again? Or is it a signal that marriages are becom-
ing more and more selective? If unmarried cohabitations are more prevalent, then more stable divorce figures might be hiding more than they reveal.

In Chapter 2, Boertien takes on this puzzle and considers whether or not unions have become more stable over time. Looking at 'stability of unions' was a necessary conceptual switch to overcome the issues of underrepresentation of cohabitations. This conceptual step went hand in hand with an empirical switch, as official records of divorces are becoming less useful to study divorce trends. Self-reported relationship status, based on surveys, is now central in analyses on international divorce trends. Boertien took all self-declared, co-resident couples and marriages as a starting point for his exploration of empirical trends in union stability. Using retrospective union histories from the British Household Panel Survey (BHPS) and Understanding Society, he tested how estimates of trends in union stability over time might have been biased. The results show that the data source has a considerable influence on the resulting trend. Prospective data suggested a reversal in the divorce trend where retrospective data showed a continuing trend towards more instability.

In Chapter 3, Wagner reviews theoretical concepts and empirical results on divorce trends. The chapter starts with a consideration of macro- and micro-level theories on union dissolution and the way both (could) interact. At the micro-level, four hypotheses were developed that can explain the upward trend in the divorce rates: (1) the declining marital quality hypothesis, (2) the hypothesis of decreasing barriers, (3) the hypothesis of an increasing legitimization of separation, and (4) the increasing opportunities hypothesis. These micro-level hypotheses were grounded in two interrelated macro developments of sociocultural change and socio-structural change. In a second part, Wagner investigated the empirical evidence. A crucial question in this respect was whether the divorce rates were influenced more profoundly by period or cohort effects. Even though many studies concluded that period effects outweigh cohort effects, the empirical results did not reach a convincing convergence. The empirical evidence on both the micro- and the macro-level was scattered and inconclusive as well. The chapter concludes with a plea to introduce feedback loops and self-reinforcing processes to the field in order to integrate the micro- and macro-level more firmly.

Chapter 4 is also concerned with divorce trends, but these authors turn their attention to Eastern Europe. Härkönen, Billingsley and Hornung looked at divorce trends in seven former communist countries. Their focus was on the transition period starting with the decline of communist economy in the 1980s up to the economic revival after the turn of the millennium. Using retrospective relationship histories, they estimated the evolution of divorce risks across the transition period of these countries. A first exploratory analysis showed signs of increasing divorce trends during the transition period. The results indicated that these increases could to a large degree be attributed to the transition itself and not to other societal changes. A second hypothesis tested whether the increase in divorce trends could be explained by a different composition of marriages. Controlling for educational attainment, fertility behaviour, cohabitation history, and presence of stepchildren, did not alter the findings. This showed how robust the increase in the divorce trends are. A final
step in the chapter was to compare the trends across these seven countries. Here the authors found a substantial difference in timing and duration of the increase in divorce rates.

Part II of the book considers divorce risks at the individual level. Whereas part I showed macro-level effects on divorce rates or contained pleas to integrate both the macro and the micro-level, the remaining parts focus on the micro-level determinants (and consequences) of a relational break-up.

Chapter 5 deals with a long-standing question in divorce research: why do higher educated women have a lower risk on a break-up than lower educated women? In order to get insights in cross-national differences in the negative educational gradient in dissolution risks among women, Van Damme used two waves of the Gender and Generations Survey (GGS) panel for six European countries. The chapter includes both married and cohabiting women. Based on Levinger's social exchange theory, the author identified attractions to stay in a relationship as well as barriers to leave. The negative gradient was present in all countries, except for Russia. When trying to explain the gradient, attractions did not explain the difference but rather suppressed it. Barriers to leave the relationship on the other hand did explain the differences between low, middle and higher educated women. The author showed that whoever had more to lose socially and economically was less likely to end her relation.

Chapter 6 brings insights from Israel on the protective effect of having children on the risk to dissolve a marriage. The protective factor of children had already been documented in low fertility countries across Europe and in the US, but raised the question whether or not these effects were similar in a high-fertility country like Israel. Kaplan, Endeweld, and Herbst-Debby used a 13-year administrative panel to estimate divorce risks while controlling for the presence of children as well as ethnic composition and economic circumstances of the couple. The results decomposed the complex effect of having children on divorce risks. Overall, having young children and having more than one child decreased the risk of a dissolution. However, these effects changed when looking more closely into ethnic background and class. Major differences were found between Israeli-Jews and IsraeliPalestinians, whereby the latter had significantly lower divorce risks when they had children. In addition, a strong socio-economic gradient was found with lower income strata, showing a higher likelihood to split, irrespective of having children or the number of children one has. Only among the highest incomes, having more children increased the risk of divorce.

As indicated before, a considerable part of this volume is devoted to the consequences of divorce. Part III looks at the consequences of divorce for the divorcing ex-partners. There is considerable diversity in these consequences, as well as the extent to which they are experienced both positively and negatively.

Chapter 7 focuses on divorce in later life, the so-called gray divorce. Consequences of divorce in midlife or later were expected to be substantially different and Högnäs looked at loneliness at older age as a potential outcome of an earlier break-up. A first question raised in this chapter is whether or not (social or emotional) loneliness was different for younger and older divorcees, taking the age of 50 as a turning
point. Building upon that question, protective effects of remarriage, health and work were taken into account. The Netherlands Kinship Panel Study (NKPS) provided the longitudinal data for the study. Contrary to the formulated hypotheses, the results did not show any effects of divorce at older age on loneliness. Rather, divorce before age 50 was associated with higher odds of social loneliness. Irrespective of the age at divorce, divorced men showed a higher degree of emotional loneliness than their married counterparts. Employment status did not influence this relationship, but health attenuated part of the relationship between divorce and loneliness.

Chapter 8 also focuses on the effects of divorce in old-age. In this chapter, Maes, Thielemans, and Tretyakova looked at intergenerational support older divorcees receive from their adult children in Russia. Russia was an interesting setting in this respect for two reasons. First, women are automatically given sole custody of the children after divorce. Second, the elderly care system in Russia is highly dependent on personal savings and intra-familial support. State support is as good as absent. This context gave rise to differential gendered effects in receiving support after a marital break-up. Studying divorced Russian men in this Russian context therefore provided new insights in intergenerational relationships when state support is minimal. The 2016 Living Conditions Survey allowed the authors to investigate four types of support: financial, material, housework and care during illness. As hypothesized, divorced elderly men received less support on all four domains than divorced women or still married men. These results pointed to a substantial and problematic divorce penalty for Russian single elderly men. Unsurprisingly, this group also had one of the highest poverty risks in the country.

Chapter 9 jumps to a different country context, Belgium, but also looks at a potentially vulnerable group of divorcees: migrant populations. Not intergenerational support, but the financial consequences of a break-up were central in this chapter. Mortelmans, Van den Berg and Thielemans looked at the coping strategies to overcome financial distress after a divorce. The chapter took population diversity into account as not only Belgian but also Moroccan, Turkish and Southern European backgrounds were studied. The study considered three coping strategies ex-partners can use after a relational break-up: increasing ones labour market attachment, repartnering, and returning to the parental home. Longitudinal register data were used to estimate latent growth models of income trajectories before and after the break. Overall, the authors observed a gender gap in economic consequences as women tended to lose more relative income than men. The hypothesized penalty for migrant groups was not found. Their economic weaker position did not worsen economic consequences after a break-up compared to the non-migrant group. Concerning the coping strategies, the authors found that only Belgian men and women were benefitting from an increased employment. Repartnering was beneficial across groups in a similar fashion. Returning to the parental home did not show the expected beneficial effect for migrant groups. This was explained by the weak socio-economic position of the migrant parents, who were not able to alleviate the financial situation of their divorced adult children.

Chapter 10 takes a gendered approach to understanding the relationship between subjective wellbeing and parenthood following a break-up. Using the Divorce in

Flanders survey, Jenkinson, Matthys, and Matsuo looked at a multidimensional operationalisation of wellbeing and its influence on (lone) parents' wellbeing. Three dimensions were taken into account: evaluative wellbeing (life satisfaction), affect (hedonic wellbeing), and eudemonia. The results showed that through experiencing a divorce, whether or not as a parent, ex-partners reported lower levels on all dimensions of subjective wellbeing. In addition, the results were gendered with men having significantly lower life satisfaction than women. For emotional wellbeing and vitality, these results were reversed with women having lower scores than men. These differences showed the importance of a multi-dimensional measurement of subjective wellbeing. The different dimensions used in the chapter illustrated how men and women might cognitively evaluate their lives in a similar fashion while going opposite directions when it concerns their actual lived experiences of positive and negative emotions.

Chapter 11 takes a theoretical perspective and looks at the consequences of divorce for the nuclear (parents - children) and extended (grandparents) family networks. De Bel and Van Gasse started out from three existing theories on family networks. The Family Systems Theory regards family relationships to be interdependent. This implies that changes in subsystems influence other subsystems in the family. Divorce was a clear example of how conflict between two partners can influence other subsystems, e.g. the parent-child subsystem. The Configurational Approach rests on the principle of mutually oriented people. Thereby, the individual level was connected to dyads that are themselves part of larger family structures. The third perspective is called the Sharing Group Perspective. This perspective was based on the premise that a group of people, like families, produce a common good together. A significant characteristic of these groups were their functional, structural and cognitive interdependences. From these three frameworks, the chapter looks at ways in which network approaches could give new answers to old questions and, reversely, poses new questions about the consequences of divorce that have not yet been answered or cannot not be answered today. The authors summarized their arguments in the Multi Actor Family Network Approach.

In Part IV we bring together studies that look at the parent-child relationship. While a parental break-up ends the (legal) ties and duties between former partners, it does not relinquish a parent-child relationship.

Chapter 12 looks at shared physical custody. As a living arrangement after divorce, shared physical custody is slowly becoming integrated in European family life. Nevertheless, resistance against the shared residence of children after a breakup has generated a public debate on the desirability of shared physical custody. Fučík looked at the Czech Republic to analyse the attitudes of men and women towards the acceptability of shared custody. As a first step, the chapter looks at the historical evolution of public debates on divorce and its potential harmful effects on children. Sole custody is shown to be under fire as women's roles in particular are shifting and fatherhood is reinterpreted and gains importance in public debates. For the empirical section, data from the Czech Household Panel Survey and the European Value Survey (EVS) was used in a gendered and age-related perspective. The results showed that men are more in favour of shared physical custody, as are
younger groups in the Czech population. No effects were found from family status (affluence) or gender-role attitudes. However, conservative attitudes on divorce influenced the opinion on shared custody, leading the author to conclude that divorce-related attitudes are of greater importance than gender-role attitudes.

Chapter 13 concerns the basic emotion of guilt and its relationship to divorce. Kalmijn looks into guilt felt by parents towards their children and defines the emotion as the negative feelings that arise from having done something wrong. As such, guilt is an obvious feeling that may arise in a divorce context. This study looked into the relationship between guilt and divorce and identified potential moderators for the relationship. The results from a representative Dutch survey showed that the feelings of guilt were indeed strong for divorced parents. Being single or repartnered after the break-up made no difference. In general, mothers showed more guilt than fathers, but this was irrespective of marital status. There were no gender differences that could be related to the divorce itself. The age of the child did not change the pattern of guilt. Parents felt more guilty for younger children but again this effect was similar in the married and in the divorced group. Despite the absence of age and gender effects, significant interaction effects were found for personality, financial problems, and drug use. Testing for altruism, empathy, and social norms, all yielded results in the expected direction. The moral dimension, however, turned out to be weaker than the role of altruism. The author concludes that this first exploration of feelings of guilt is only a stepping stone for further explorations of the moderating role of guilt in studies on depression after divorce or the perception of the parental role.

Chapter 14 considers the father-child relationship after divorce. When looking at the father-child bond, Maslauskaite and Tereškinas differentiated between "caring for" (intimacy and approval) and "caring about" (conflict and lack of paternal authority). With this multidimensional operationalisation of quality of the relationship, they aimed to go beyond classic studies of father-child contact or child support. The data for the study came from the study Fathering after Union Dissolution in Lithuania. The results showed that higher levels of personal wellbeing and involved fatherhood lead to more "caring for" relationships and fewer "caring about". Concerning more structural factors, like socio-economic resources or new family transitions like multi-partner fertility or repartnering, no or effects opposite from expectations were found. In Lithuania, men were encouraged by their new partners to be more involved with their children from previous marriages and they also showed higher conflict resolving behaviour towards their children. The authors conclude that the negative effects of new partners or new biological children that have been found in earlier research did not hold when quality of the relationship, rather than father-child contact frequency, was taken into account.

Part V brings children to the centre of attention. Both childbearing and consequences for children are included in this fifth part.

Chapter 15 looks at gender differences in multi-partner fertility. Divorce is not the end point of one's life course, nor of someone's fertility history. Jalovaara and Kreyenfeld compared 'familialistic' Germany and 'de-familiarized' Finland, to look at gender differences in multi-partner fertility. Within Germany, separate anal-
yses were made for East and West Germany due to the substantial differences in female labour market attachment in both regions. For Finland, longitudinal register data were used. The German data came from the PAIRFAM panel study. The differences in the three areas were considerable. Multi-partner fertility was highest in East Germany and lowest in West Germany. Consistent in all three was that foreign born men and women had a lower likelihood of multi-partner fertility, whereas early first child-bearing increased this likelihood. The results of education were only as expected in Finland, with the lower educated having higher multi-partner fertility. In Germany, no correlation between the education level and the fertility measure was found. Overall, women have a higher likelihood of having a second or third child (after the divorce) than men. Given their lower probability of repartnering, this was surprising. The authors conclude with a plea to include birth figures for both men and women, since multi-partner fertility showed that merely looking at the female data no longer represents societal reality.

Chapter 16 is based on the observation that children, or in this case adolescents, are increasingly often living in two homes after a divorce. Gähler and Fallesen inquired what the effect would be of living in a shared physical custody arrangement on the wellbeing of adolescents. The authors used a four-country longitudinal study with an oversampling of people with a migrant background. In order to overcome often used simplified dichotomies in family research (such as "single-parent family" or "reconstituted family"), the authors used 15 family categories to encompass the complexity of living arrangements adolescents find themselves in. Adolescents' emotional and psychological status was operationalised using three indicators: internalizing problems, self-esteem, and life satisfaction. The outcomes showed that overall, adolescents in intact families fared the best, even compared to reconstituted families. Within these families, the presence of a new partner and resources did not make a difference. Rather, it was spending a balanced amount of time in the mother's and father's household that clearly improved the wellbeing of adolescents. However, this overall effect was more limited when both households were asymmetrical (e.g. one single parent and one reconstituted family).

Chapter 17 can be situated in one of the largest research streams in the field of divorce studies: the educational attainment of children after divorce. Havermans, Swicegood, and Matthijs place themselves in the 'diverging destinies' tradition by looking at the role of social class in the educational outcomes of children after divorce. Rather than academic achievement, the outcome variable in the study was school engagement. This multi-dimensional non-cognitive outcome has been proven in earlier studies to correlate with many educational outcomes, but had not yet received proper attention in divorce research. Using the LAGO-data, the authors tested both the floor hypothesis (expecting to see less negative effects of divorce among children of lower educated parents because these already start at lower levels of academic achievement) and the social origin compensatory hypothesis (due to fewer resources, divorce has worse effects on children among the lower educated). The results predominantly supported the floor hypothesis, as the decline in resources after divorce showed a higher impact among middle and higher educated parents
than among the lower educated. Nevertheless, support for the social origin hypothesis on the other hand was found in the protection of the father-child relationship after divorce among higher educated parents.

### 1.3 What Will the Future Bring?

Closing this preamble, I want to look at the development of divorce research in Europe over the last two decades and take a peek into the future. When the divorce network started, many participants brought country-level analyses on either trends of divorce, i.e. antecedents and consequences of divorce. The field of divorce in Europe was explored and step-wise knowledge on the European diversity was gained. In these starting days, many have held a plea for appropriate data to study couple dynamics. Some panel studies like the GSoep or the BHPS were already available, but in general there was a lack of large-scale and longitudinal data to study either causes or consequences of break-ups. Furthermore, cohabitation was not as widespread as it is today, leading to an almost exclusive focus on marriages in these starting days. By the end of the first decade of the new millennium, the situation had changed dramatically. Heavy investments in European research infrastructure have led to a completely new landscape in family studies: EU-SILC, Share, ESS, GGP (with the harmonized histories) all opened up new areas and possibilities for divorce studies. These large scale databases were locally complemented with targeted divorce studies like the Divorce in Flanders study, the Fathering after Union Dissolution in Lithuania survey or general family panel studies like the German Pairfam. After this huge catching up, a new development in family research data arose: the registers. Starting in Scandinavia, many European countries have opened up their administrative data for scientific research. As marriage and to some extent cohabitation is officially registered, family research and divorce studies in particular benefitted greatly from the longitudinal structure of register data. What the future holds on the data front is difficult to predict, but the European Union at least continues to invest in large-scale data infrastructures that have been developed since the turn of the century, which means that new survey data will continue to be available. Register data have proven their value for both scientific and policy oriented research. Even the new GDPR legislation does not block the pathway of using large-scale administrative data. A promising new road could be the linking of survey data and register data. Registers have the advantage of being reliable, large scale and longitudinal but lack the subjective indicators we often need in our theories. Where both data sources can be joined (in a legal way, since technically this is often already possible) new possibilities of more refined analyses on family dynamics will arise.

Also qualitative research and mixed methods could contribute at the development of the field. Up to now, and this book is a perfect illustration thereof, the field of divorce studies is dominated by the quantitative perspective. Large and longitudinal datasets, event histories and multilevel models help hypotheses to be tested. Parameters, model specifications and significance are at the core of the insights on
causes and consequences of divorce. As happened in other domains, the rise of qualitative studies and mixed method approaches have deepened the insights and provided surprising new insights that quantitative measures had not spotted yet. This wider development in the social sciences is only slowly entering the field of divorce studies. But if our aim is to understand the complexity we described earlier, we will have to embrace qualitative insights and combine them, mixed or not, to advance our knowledge in a continuous complex world of family dynamics.

Apart from the data and the methodology, what will the theoretical development in this field bring us? As mentioned earlier, theories on causes and consequences of break-ups have already been developed for many years. Many theories on divorce start from the economic specialization argument (Becker 1981; Becker et al. 1977), whereby the division of labour in a family determines its stability. Others rely more on social exchange theory (Levinger 1976) that stipulates that relationships either have attractions that keep people together, contain barriers that prevent people from leaving the relationship or bring attractive alternatives outside the relationship. Alternatively, marital quality (or better: relationship quality) is a major focal point when looking at relationship stability. When considering consequences, the stressadjustment perspective of Amato (2000) is an often referred to theory alongside many other consequence-specific theories. When looking at future theoretical developments, we see a greater influence of gender theories, and more specifically gender role perspectives (Esping-Andersen and Billari 2015; Goldscheider et al. 2015) in demographic theorizing. As gender roles in society develop, so do the gender relations within families. Next to gender roles, also the nature-nurture discussion could enter the domain of family dynamics. Genetic influences in the intergenerational transmission of divorce have already been studied in twin studies (D'Onofrio et al. 2007a, b). But the increased availability of indicators from blood samples (e.g. in Understanding Society or Share), the gene-environment interaction is increasingly fed with data that wait for researchers to be analysed.

But next to existing theories, we also need to take into account the blind spots in our domain. Even though lack of knowledge often originates from lack of data, there are still some domains where our knowledge is fairly limited. A research program ahead of us is the analysis of gains of divorce. The domain of consequences is dominated (for obvious reasons) by the study of negative consequences. But divorce can also be liberating and have a positive effect on the subsequent life courses of divorcees. As early as 2003, Coltrane and Adams (2003) stressed that individual self-fulfilment and self-actualization is not necessarily found in the current relationship but could also be achieved in the next one. Also, the current research is still adult-centred, or rather, partner-centred. Too little information is sought among the children of divorcees, or the (grand)parents, or in the broader social network surrounding a former couple. Again, the price of collecting multi-actor data is considerable but so are the new insights in the dynamics and the consequences of divorce in a wider perspective.

A final domain to look at is policy. In Europe, we have seen a substantial change in divorce laws over the last few decades. Divorce was made easier and became less stigmatized, both sociologically and legally. No-fault divorce is now the standard in
most European countries. Nevertheless, divorce laws are only a small part of the story. Divorce is one of the forces behind the massive change in family life of the past decades. The family kaleidoscope (Mortelmans et al. 2016) in Europe and abroad shows a never seen diversity and a complexity barely manageable by currentday legislation. Social and family policy is focused on the weakest members in the former relationships, often the women and children. But fundamental principles in current-day legislation still rely on the male-breadwinner and the two-partner family. Cohabitation is to some extent integrated into the law but shared custody still shows a high diversity across Europe. Furthermore, life-course perspectives in legislation that acknowledge new family realities and multiple family dynamics across the life course are far from common.

The long-term research agenda for divorce researchers is clearly bursting with new opportunities, new challenges and new exciting discoveries to be made. I leave the reader now to the explore the newest developments that are collected in this volume from the next chapter onwards. I hope that you, dearest reader, will raise your finger as Jaap Dronkers always did during our presentations with his simple "do you mind if I briefly interrupt?". You are welcomed into our network, and you should feel welcome to briefly interrupt us ... we are eager to learn from you.

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On Divorce Trends

# Chapter 2 <br> The Conceptual and Empirical Challenges of Estimating Trends in Union Stability: Have Unions Become More Stable in Britain? 

Diederik Boertien


#### Abstract

This chapter provides an overview of the conceptual and empirical challenges that arise once measuring union stability. Conceptually, the chapter discusses different ways of defining unions and what each way implies in terms of measurement. For the purposes of this chapter, union stability is defined as the stability of both marriages and co-residential unions. Available data sources are discussed as well as their possible biases. Empirically, the chapter compares two data sources from Britain to show that there are serious challenges to be overcome when using survey data to estimate trends in union stability. Survey data possibly overestimates union stability due to selective non-response and prospective surveys do not report many unions that existed according to retrospective data. Good news comes from a comparison of two retrospective sources which provide relatively consistent estimates of trends in union stability. If retrospective information is indeed to be trusted, union stability has been decreasing across cohorts (1974-1999), but this development appears to have stalled for the most recent cohort formed in 2000-2004. A lack of recent data, however, prevents us from knowing whether this trend has continued, underlining the need to invest in the repeated collection of retrospective union histories.


Keywords Union dissolution • Cohabitation • Separation • Data quality • Attrition

[^1]
### 2.1 Introduction

The dramatic increases in divorce rates in Western societies over the last decades have provided a fertile ground for theories regarding individual and couple behavior (Wagner et al. 2015). The increased prevalence of divorce has been regarded as an indication of a greater value put on personal autonomy (Lesthaeghe 1995) and changing expectations of relationships (Cherlin 2004). It has also been regarded as reflecting changes in relationship dynamics between men and women, with women having increasingly more control over their own lives and couple behavior (Becker et al. 1977; Oppenheimer 1997). Recently, scholars have started to pay attention to a break in the trend of increasing divorce rates. Since the 1980s, divorce rates have arrived at a plateau and recently possibly started to decline again in the United States (Cohen 2018; Kennedy and Ruggles 2014; Stevenson and Wolfers 2011; U.S. Census Bureau 2007). Crude divorce rates have also been dropping in some European countries (Esping-Andersen 2016).

If increases in divorce rates have been consequential for our thinking about couple life, a partial reversal of that trend should provoke new theories and explanations too. But the recent possible stabilization of marriage has not yet sparked great interest from scholars. This could well be because the selection of people into marriage has changed over time. Not all cohabiting relationships are formalized through marriage anymore, and many children grow up in households where parents are not married (Heuveline and Timberlake 2004). Divorce rates therefore decreasingly cover all of couple and family life, and the usefulness of the indicator has consequently changed over time (Cherlin 2010). A logical question would therefore be to ask: Has the stability of unions in general changed over time?

The aim of this chapter is to try and answer this question for cohabiting unions and marriages in Britain. Unfortunately, switching from the study of marital stability to the study of union stability is fraught with conceptual and empirical challenges. An important goal of this book chapter is to give an overview of these different challenges, and to provide recommendations for future data collection and research. Problems in the estimation of levels of cohabitation and divorce have been getting attention over the last decades (Manning and Smock 2005; Hayford and Morgan 2008; Kennedy and Ruggles 2014), but barely any attention has been paid to the estimation of trends in union stability.

The chapter will be organized according to two main sub-questions. Firstly, how to define unions and should all types of relationships be included in estimates of union stability? In this section, rather than providing an account of what a union exactly is, different practical options are reviewed in terms of how well they allow for unequivocal measurement and how likely they are to be relevant for social science research. Secondly, what data is the most appropriate to empirically document trends in union stability? To answer the second question I will discuss various possible sources available (e.g. administrative data, longitudinal surveys, and retrospective union histories) and the possible biases introduced by using each source of data. To get insight into how serious these biases are, several tests will be performed
in the empirical section of the paper using the British Household Panel Survey and Understanding Society data. Based on the results of these tests, an as best as possible estimate of changes over time in union stability in Britain will be provided.

### 2.2 The Conceptual Switch from Marital to Union Stability

Ever more relationships in Europe diverge from the 'traditional' route of a period of courtship followed by marriage and children. Widely used indicators such as marital stability therefore no longer cover the great majority of relationships and families in society (Cherlin 2010). Is it possible to create a new measure of union stability that has the same qualities that measures of marital stability once had: straightforward measurement and covering most long-term relationships in society?

Legal marriages have a clear starting date and include a ceremony that, at the least, includes a declaration of being a couple in legal terms. Legal agreements can be collected by authorities to compile official statistics on marriage. Other relationship forms often do not have such a clear moment where the relationship status of a couple is declared. For instance, it is not uncommon that the question when a couple started 'dating' leads to a conversation between partners aimed at re-constructing past events. Such a question can be interpreted in various ways (e.g. first romantic involvement, informal declaration of being a couple). If one cannot clearly measure when a relationship starts, how do we know who is in a relationship at a given point in time?

A moment of transition might be clearer in the case of cohabiting unions. Many cohabiting couples sign cohabitation agreements or register in other ways with authorities (Perelli-Harris and Gassen 2012). Registered partnerships therefore should be identifiable in a manner similar to marriages. However, many cohabiting partnerships are never registered with authorities. A new measure of union stability that only includes registered partnerships and marriages is therefore still likely to leave many long-term relationships out of consideration. Are there other relatively objective ways of defining the start of a cohabiting relationship?

One might consider the moment a couple moves in together as the start of a coresidential relationship. However, qualitative research has shown that people often gradually move in with each other, starting with staying over a couple of nights a week and ending in full-time co-residence (Manning and Smock 2005). Such sliding into cohabitation makes it hard to pin down the start of a co-residing relationship. There might be relatively objective ways of determining co-residence of two persons such as the registration at a certain address or, for instance, counting the number of nights one spends outside of the partner's home (excluding travels). There are some limitations to determining co-residence in such ways, including possible failures to register a new address. But more importantly, the co-residence of two persons does not necessarily imply that they are a couple. One might therefore define co-residence in such a way that it should be measurable in a relatively objective way, but in order to measure co-residential romantic unions it will always be necessary to ask co-residing individuals whether they are a couple or not.

A new measure of union stability that includes cohabiting unions will therefore necessarily have to rely on some form of self-reported relationship status, an essential difference as compared to measures of marital stability. But, if the definition of a union ultimately depends on the self-identification of couples as such, why should we categorically exclude other relationships that also depend on such selfidentification? For instance, definitions of non-residential relationships rely on individuals perceiving themselves as being a couple (Strohm et al. 2009:177). Such non-residential relationships can include 'Living Apart Together' (LAT) relationships which sometimes are defined as having an explicitly expressed long-term commitment between partners (Connidis et al. 2017:1407), but also other 'dating' relationships that consist of non-residential relationships that do not necessarily include a long-term commitment.

If self-identification cannot be avoided in the measurement of union stability, what would be objections against including all self-declared relationship in the construction of such a measure? Marital stability has been such a widely studied topic, not only because marriage was the major ambit within which relationships took place, but also because marriage impacts well-being (Amato 2010), is an arrangement within which economic resources can be pooled (Lyngstad et al. 2010), affects social networks (Kalmijn 2012a) and relationships between family members when dissolved (Kalmijn 2012b), and marriage used to be the primary setting within which children were born and raised (Perelli-Harris et al. 2012). Furthermore, marriages involve a division of paid and unpaid labor and are therefore defining for gender relations (Brines 1994). Due to these characteristics of marriage, changes in divorce rates have been of concern for theories and research on topics such as gender relations (Esping-Andersen and Billari 2015; Goldscheider et al. 2015; Oppenheimer 1997), child development (Amato 2010; Härkönen et al. 2017), and inequality of opportunity (McLanahan and Percheski 2008).

In other words, marriage and divorce have an impact on people's lives. The selfdeclaration of being in a couple with another person by itself does not imply any kind of impact on people's lives. Marriage, at the minimum, requires an agreement on the legal responsibilities partners decide to have toward each other, and therefore by definition has some impact on people's lives. Even though most relationships affect mental well-being, gender relationships, and economic standing, there might be many self-declared relationships that have relatively little impact on people's lives. In other words, a change in the stability of self-declared relationships is not likely to be as consequential for people's lives as a change in marital stability. The inclusion of all self-declared relationships in indicators of union stability, regardless of their impact on people's lives, might therefore reduce its usefulness for many of the research questions asked in social science research.

One solution would be to look at long-term commitment between partners, as has been done to distinguish certain types of LAT relationships (Connidis et al. 2017:1407). A long-term commitment requires coordination of behavior between partners. Committed relationships are therefore likely to have more impact on
people's lives as compared to less committed relationships. Are there relatively objective ways to measure commitment? One way might be to focus on common investments made by the couple, with as the clearest example having children together (Aarskaug Wiik et al. 2009). However, not all couples with a long-term commitment have children, including those who want but do not have children, and not all fertility is intended. Nonetheless, looking at the stability of families with children has been an approach taken by recent studies (Brown et al. 2016; Musick and Michelmore 2018; Thomson and Eriksson 2013) and is especially relevant for questions on child development and inequality of opportunity (McLanahan and Percheski 2008). Another objective indicator could be the joint ownership of assets such as a home. However, a measure based on the ownership of economic resources is likely to only cover (economically) select parts of society.

If commitment is hard to measure objectively using a single measure applicable to all relationships, a solution might be to consider co-residence as an indicator of how impacting a relationship is on people's lives. In this case, the definition of coresidence is crucial, but if (a minimum period of) co-residence involves sharing bills, rent, and determining the division of domestic labour, it has at least some impact on people's lives. Similar to marriage, where the declaration of being a legal couple requires a minimum coordination of legal responsibilities, co-residence also requires a minimum level of coordination of economic and practical responsibilities. This is a defining feature that non-resident self-declared relationships do not necessarily have.

Summing up, there seem to be three general options available regarding the type of relationships that can be included in the construction of a new measure of union stability: (1) include registered partnerships and marriages; (2) include self-declared co-residing couples and marriages; (3) include all self-declared couples and marriages. Option 1 can be measured in a way that does not require the self-identification of couples. However, Options 2 and 3 are likely to cover more of the total universe of relationships that have an impact on people's lives. Given that Option 3 runs the risk of also including relationships that do not have a major impact on people's lives, I give preference to Option 2 in this chapter.

There are several objections that can be made against this choice. For instance, one might argue that committed LAT-relationships impact people's lives as much as many co-residential unions. However, until conceptual developments are available allowing for a relatively objective identification of commitment in relationships, it does not seem straightforward to distinguish committed LAT-relationships from other non-residential relationships. One might also argue that co-resident relationships comprise a large variety of relationship forms that range from marriage-like unions to relationships that resemble 'dating' without any clear commitment (Heuveline and Timberlake 2004; Hiekel et al. 2014; Kiernan 2004). One could therefore not consider all cohabiting unions as equally relevant for a measure of union stability. A counterargument could be that marriages might also have low commitment and can dissolve as soon as bumps on the road appear. But this is a debate that is likely to remain open.

### 2.3 Estimating Trends in Union Stability

If the goal is to estimate the duration of co-resident relationships and marriages, what measures and data are available to do so? In general, three types of sources have been used: administrative data, prospective and retrospective survey data. Each of these sources is discussed in turn.

### 2.3.1 Administrative Data

Governmental bodies often have information on co-residence of individuals, but such administrative data do often not record whether co-resident individuals are a couple, unless they legally registered their partnership. Administrative data has been used in studies on both cohabitation and separation, but such data either requires restricting the sample to parents of common children (Thomson and Eriksson 2013) or requires additional assumptions such as the assumption that adults of the oppositesex who live together are a couple (Jalovaara and Kulu 2018). Another avenue is to perform consistency checks based on other characteristics available in the data, or to calculate the likelihood that two co-resident individuals are a couple (Esteve et al. 2012). It remains unclear, however, how often such assumptions and procedures lead to miscoding single individuals as couples, and how consequential this is for estimates of trends in unions stability based on administrative data.

Jalovaara and Kulu (2018) used Finnish registry data which has the unique feature of identifying residence at the dwelling level. They considered two co-residing individuals to be a couple if they co-resided in the same dwelling for 90 days or more, were not close relatives, had the opposite-sex and did not have an age difference of more than 20 years. Such a definition likely includes most cohabiting relationships, but might also include individuals of the opposite-sex who are co-residing but not romantically involved. They report that in the Finnish European Social Survey rounds 2002-2014, 0.6\% of respondents reported to be co-residing with an unrelated adult of the opposite-sex without being a couple (Jalovaara and Kulu 2018: Supplementary Material). More research is needed to investigate how consequential such a prevalence of miscoding is for the estimation of trends in union stability. At the same time, administrative data offer qualities as compared to survey data (see next sections). Finally, administrative data is currently only available to researchers in a limited set of countries.

### 2.3.2 Survey Data

Survey data has been used in several existing studies on union stability (Brown et al. 2016; Raley and Wildsmith 2004). Survey data allow for the inclusion of selfreported couple status, but can be biased due to either misreporting or due to selective non-response (Mitchell 2010).

Most existing findings on misreporting that are relevant for this chapter come from studies on the measurement of cohabitation. Determining whether a couple is cohabiting is not always straightforward for survey respondents (Manning and Smock 2005). The terminology used to determine couple status appears important in this regard. Manning and Smock (2005) found in their qualitative study that many individuals find the term "unmarried partner" confusing, which is often used in large US datasets. Besides not being sure whether one fits a certain definition, some couples might be hesitant to disclose their union status out of fear of losing welfare benefits or due to social stigma (Murphy 2000; Teitler et al. 2006). In line with these arguments, prospective data indeed showed lower rates of cohabitation as compared to retrospective data in various studies (Berrington et al. 2011; Murphy 2000; Teitler et al. 2006).

However, differences with prospective data might also emerge because retrospective data over-reports cohabitation. Teitler et al. (2006) indicate two possible ways people might misreport events in case they do not re-call them accurately. Firstly, people tend to aim for consistency in the states they report, which leads to the tendency to apply a current situation to the situation reported on in the past. Secondly, memories are affected by current emotions, which could lead respondents to retrospectively "downgrade" the status of past unions. More concretely, if union status in the past was ambiguous, respondents might decide that the union 'existed' if it exists today, and might decide that it did not 'exist' if the relationship dissolved. They found support for these expectations by comparing retrospective and prospective reports on cohabitation from the Fragile Families Study.

The Fragile Families Study asked mothers after giving birth whether they cohabited with the father of their child. One year later, mothers were asked retrospectively whether they cohabited with the father of their child at the time of birth. Respondents in general "upgraded" their reports of union status at birth, with many women not reporting being in a cohabiting relationship at birth, but reporting that they did in retrospective reports. However, women whose relationship with the father had dissolved by the second round of interviews often "downgraded" their relationship: they had an increased probability of retrospectively reporting not having cohabited with the father at birth, even though they indicated they did prospectively (Teitler et al. 2006). If retrospective reports on relationship status indeed depend to an important extent on current relationship status, this might lead to an overestimation of union stability: unions that survive are reported whereas unions that do not survive are omitted.

There are additional reasons to expect union stability to be overestimated in retrospective union histories. Re-call bias might lead people to omit reports on (short) cohabiting unions that took place in the distant past. Hayford and Morgan (2008:129) found that "cohabitation histories underestimate cohabitation rates in distant periods relative to rates estimated closer to the date of survey". Teitler et al. (2006) found larger discrepancies between prospective and retrospective reports of cohabitation if both measurement points were spaced apart further in time.

Besides misreporting, another source of bias in survey data is non-response (Mitchell 2010). Selective non-response can arise when individuals with unstable
union trajectories are less (or more) likely to respond to a survey, or because they are more likely to drop out of longitudinal surveys. All estimates from survey data have to deal with differential response rates but selective attrition would form a major obstacle to the use of longitudinal prospective data in particular. Several studies have shown how attrition is related to marital status (Mitchell 2010; Young et al. 2006). If attrition is based on characteristics observed in previous waves, such attrition might be adjusted for by using sample weights. On the other hand, if attrition is directly related to the event of union dissolution, such adjustments are not likely to be of help. Individuals who separate between waves of a longitudinal survey might be especially likely to drop out of a survey because of two reasons: a) union dissolution includes residential mobility for at least one individual, which might complicate contacting survey respondents in a follow-up round; b) It can be expected that individuals who recently separated are not very eager to cooperate with a survey (Young et al. 2006), especially if this includes questions on their relationship history. To what extent events of separation are related to attrition is still to be investigated.

### 2.3.3 This Study

Most of the existing empirical evidence on the sources of bias discussed so far comes from studies on the levels of cohabitation. In this chapter, the goal is to use data from Britain to test whether these issues also lead to biased estimates of trends in union stability.

Firstly, data from the British Household Panel Survey (BHPS) is employed. The BHPS collected both prospective and retrospective data on union histories, and these overlap for one year (1991-1992). This allows us to test for a consistent sample of respondents whether reports of union stability differ between prospective and retrospective sources. There are several possible expectations in this regard:

Hypothesis la: If retrospective reports of union status are influenced by current union status, retrospective reports overestimate union stability.
Hypothesis 1b: If prospective data under-report cohabitation unions, either due to ambiguity of a couple's union status or due to purposeful misreporting, prospective reports overestimate union stability.

Secondly, the household design of the BHPS allows us to follow both partners after union dissolution. This enables comparing general patterns of attrition to attrition among one of the two separated partners. In this regard it is expected that:

Hypothesis 2: The event of separation is related to higher levels of attrition.
Finally, I test the possible influence of re-call bias by comparing the retrospective data from the BHPS collected in 1992 to retrospective data from a comparable survey: Understanding Society. Retrospective union histories were collected in 2009/2010, the first wave of the survey. The combination of these datasets allows us
to check for consistencies in reports on union stability for the period 1975-1991 in Britain. The expectation is that:

Hypothesis 3: If separation events in the distant past are less likely to be reported, retrospective union histories that are collected further away in time are likely to overestimate union stability.

Finally, I aim to document the overall possible consequences of these biases by testing to what extent different data sources produce different estimates of trends in union stability. I compare the family histories of the BHPS (Pronzato 2011) to retrospective reports from the first wave of Understanding Society collected in 2009/2010. The BHPS family histories are based on a combination of retrospective data collected in 1992 with prospective longitudinal data covering 1991-2008. Comparing this data to retrospective reports from 2009 allows us to compare estimates of union stability from a retrospective source to estimates from prospective data.

### 2.4 Data and Method

This study employs information from retrospective union histories recorded by the BHPS and Understanding Society studies (University of Essex 2010, 2018). Both are longitudinal surveys representative to the British population and apply similar definitions of unions and their dissolution. The retrospective union history module of the BHPS collects respondents' information for up to four marriages (collected in 1992). It starts by asking what month and year each marriage took place, followed by a question whether the respondent and partner did "live together as a couple before getting married" and if so what month and year they started living together. Dissolution is measured by asking the month and year when the couple stopped living together and the reason the union ended (e.g. separation, divorce or death). After collecting information on marriage, a cohabitation section starts where respondents are asked if they "ever lived with someone as a couple for three months or more", and if so, how many partners they lived with for more than 3 months outside of marriage. For each of these partners respondents are asked which month they started and stopped living together.

The union history module of Understanding Society imported the structure and questions from the BHPS, but with some slight modifications. Most importantly, the module starts with asking details on the current marriage, and subsequently on all previous marriages (rather than starting with the first and recording up to four marriages). Hannemann and Kulu (2015) found a high degree of consistency between estimates of levels of marriage and divorce once comparing Understanding Society data to official statistics.

Part of the analysis relies on prospective information on unions from the BHPS. This data is derived from information on yearly questions whether and with whom persons were "married" or "living as a couple", combined with yearly questions on whether, when and why (e.g. divorce/separation/deceased/left for job, etc.) persons present in the household in the previous interview left the household and
vice versa (i.e. whether new persons entered the household as compared to last year). The prospective data might therefore miss short cohabitation spells that took place between waves. In this chapter, once comparing prospective to retrospective sources, short cohabitation spells (of less than a year) are excluded from the sample when relevant.

Several samples are employed in this study. Firstly, prospective and retrospective reports on union histories are compared for respondents interviewed both in the 1991 and 1992 waves of the BHPS. This sample excludes respondents who joined or dropped out of the survey in 1992. All respondents who reported either retrospectively or prospectively to have been in a cohabiting union or marriage at the time of interview in Wave 1 were included ( $\mathrm{N}=6033$ ).

Secondly, to compare estimates of trends in union stability across union cohorts between the BHPS and Understanding Society data, I restrict the sample to first unions formed between 1975 and 2004. The restriction to first unions is motivated by the slight difference in the total number of marriages recorded in the BHPS. Women's information on unions is used given that they consistently appear to provide more accurate information on family events than men (Mitchell 2010). The only further requirement for inclusion was the presence of a starting date and an ending date if the union dissolved before last interview. Unions were right-censored if a partner passed away, or if the couple was still intact at the date of last interview. Transitions from cohabiting to married unions were not regarded as a union end.

Besides differences in survey instruments, there might be differences in the sample composition across data sources. To compare the BHPS to Understanding Society, I limit the BHPS sample to those present in 2008 and employ sample weights provided that account for attrition and the inclusion of temporary sample members. The first wave of Understanding Society is included and sample weights for the year 2009 are used. To take further possible differences in sample composition into account, controls are included for several characteristics including country (England, Northern Ireland, Scotland, Wales), ethnicity (Asian, Black, Other, White), being foreign born and education (ISCED 1-2; ISCED 3-4; ISCED 5-6). When comparing retrospective union histories recorded in 1992 in the BHPS to retrospective histories collected in 2009 by Understanding Society, respondents from Northern Ireland and individuals who arrived to Britain after 1991 were excluded from the Understanding Society data, again to make the sample comparable to the BHPS in 1992.

### 2.5 Results

### 2.5.1 Comparing Retrospective and Prospective Reports Using a Consistent Sample

The results section starts by testing various hypotheses about sources of bias in the estimation of union stability. Table 2.1 compares retrospective and prospective reports on the dissolution of unions between Waves 1 and 2 of the BHPS. The infor-
mation comes from 6033 respondents who reported being in a union at the time of interview in Wave 1 either prospectively (In Wave 1) or retrospectively (In Wave 2). $94.3 \%$ of respondents provided consistent information on union stability. $2.7 \%$ of cases had information on couple status in Waves 1 and 2, but did not complete the retrospective history module. A remaining $3.1 \%$ provided inconsistent information. Even though this might seem as a small percentage, out of the 223 reports of a separation recorded across both sources only $58 \%$ were reported both prospectively and retrospectively. Does this discrepancy lead to biased estimates of union stability?

Some mismatches across sources are likely to arise because of small retrospective misreports of the month at which unions were formed or dissolved. If one assumes such measurement error to be random, we would expect retrospective and prospective reports, on average, to produce consistent estimates of union stability. However, based on retrospective data $3.4 \%$ of unions dissolved between waves, whereas prospective data would lead to a dissolution estimate of $2.8 \%$.

This pattern of lower stability in retrospective reports was predicted if prospective reports do not capture all cohabiting unions in vigor due to unclear definitions or deliberate misreporting. It goes against the expectation that current union status dictates reports on past union statuses and therewith biases estimates of stability upward. Further support for this conclusion is provided by the more detailed numbers of Table 2.1. The most common inconsistency across sources consists of respondents who retrospectively reported a separation between interviews, but did not prospectively indicate being in a union in Wave 1 ( $53 \%$ of all separations not consistently recorded). An additional inspection of the actual union formation and dissolution months reported in the retrospective data confirmed that the great majority of these cases are unlikely to be due to the misreporting of specific months (not shown). Even though $50 \%$ of these 'missing separations' consisted of unions that started in the 4 years before Wave 1 , only 6 cases started 4 months or less before

Table 2.1 Comparison of retrospective and prospective info on separations between waves 1 and 2 of the BHPS

|  | Retrospective data |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | ---: |
|  | Separation <br> between <br> Waves | No union <br> in wave 1 | Union in wave <br> $1 ;$ no <br> separation | No <br> retrospective <br> info | Total |  |
| Prospective <br> data | Separation <br> between waves | $133(2.2 \%)$ | 23 <br> $(0.4 \%)$ | $6(0.1 \%)$ | $2(0.0 \%)$ | 164 |
| No union in <br> wave 1 | $51(0.8 \%)$ | N/A | $58(1.0 \%)$ | N/A | 109 |  |
|  | Union in wave <br> $1 ;$ no <br> separation | $14(0.2 \%)$ | 27 | $5550(92.0 \%)$ | $164(2.7 \%)$ | 5755 |
| No info in <br> wave 1 | - | N/A | $5(0.1 \%)$ | N/A | 5 |  |
|  | Total | 198 | 50 | 5619 | 166 | 6033 |

Note. Only includes information on individuals that indicated being in a union at Wave 1 either in prospective or retrospective data. Separations are defined in both sources as ceasing to live together

Wave 1. In addition, even though slightly more of these retrospectively reported separations took place in the months after interview, they are relatively evenly distributed across months between waves (e.g. $50 \%$ reported the separation to have taken place 6 months or later after the Wave 1 interview).

### 2.5.2 Re-call Bias

The comparison of reports from prospective and retrospective sources suggests that prospective data might overestimate union stability. Retrospective union histories might be affected by re-call bias, which would be more serious for events further in the past. Do retrospective histories spaced apart 17 years in time produce different estimates of union stability?

Table 2.2 compares trends in union stability for the period 1976-1992 based on retrospective data from the BHPS (1992) and Understanding Society (2009). The time period and samples of both surveys were harmonized for this table. Most importantly, the BHPS sample consists of respondents present in 2008 to account for possible selective mortality between 1992 and 2008 (sample weights are included). Models 1 and 2 show how both sources produce relatively consistent

Table 2.2 Proportional hazard models of union dissolution by data source; 1976-1992

|  | BHPS |  | Unders. society |  | Pooled data |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Haz.R | SE | Haz.R | SE | Haz.R | SE | Haz.R | SE | Haz.R | SE |
|  | Model 1 |  | Model 2 |  | Model 3 |  | Model 4 |  | Model 5 |  |
| Union cohort (Ref. 1975-79) |  |  |  |  |  |  |  |  |  |  |
| 1980-1984 | 1.00 | 0.24 | 1.30** | 0.10 | 1.23** | 0.10 | . | . | . | . |
| 1985-1989 | 1.69** | 0.40 | 1.77** | 0.16 | 1.80** | 0.16 | . | . | . | . |
| 1990-1991 | 2.86** | 1.26 | 2.13** | 0.38 | 2.26** | 0.39 | . | . | . | . |
| Dataset (Ref. Un. Society) |  |  |  |  |  |  |  |  |  |  |
| BHPS | . |  | . |  | 0.84 | 0.08 | 0.65* | 0.12 | 0.88 | 0.16 |
| Time-period (Ref. 1976-1979) |  |  |  |  |  |  |  |  |  |  |
| 1980-1983 |  |  |  |  |  |  | 1.23* | 0.09 | 1.22* | 0.11 |
| 1984-1987 |  |  |  |  |  |  | 1.46** | 0.12 | 1.42** | 0.12 |
| 1988-1991 |  |  |  |  |  |  | 1.77** | 0.14 | 1.91** | 0.15 |
| 1980-1983*BHPS |  |  |  |  |  |  | 1.03 | 0.26 | 1.03 | 0.26 |
| 1984-1987*BHPS |  |  |  |  |  |  | 0.86 | 0.22 | 0.75 | 0.20 |
| 1988-1991*BHPS |  |  |  |  |  |  | 1.25 | 0.27 | 1.12 | 0.25 |
| Controls | YES |  | YES |  | YES |  | YES |  | YES |  |
| Weights | YES |  | YES |  | YES |  | YES |  | YES |  |
| Sample 2008 | YES |  | YES |  | YES |  | YES |  | NO |  |
| Sample 1992 | NO |  | NO |  | NO |  | NO |  | YES |  |
| N | 1419 |  | 4212 |  | 5631 |  | 5631 |  | 7525 |  |

Note. Data referring to 1976-1991 from retrospective union histories. Only women's first unions $* * \mathrm{p}<.01 ; * \mathrm{p}<0.05$
trends in union stability, with decreasing stability across union cohorts. Model 3 pools data from both sources and documents that estimates of union dissolution are slightly lower in the BHPS. This difference is close to statistically significant. Model 4 splits observation time into four groups of years, and shows that for more distant periods the BHPS actually underreports union dissolution. This is a pattern opposite to what would be expected if surveys distant in time omit more events than surveys closer in time. How could this discrepancy be explained?

One possibility is that restricting the sample to those present in the 2008 wave of the BHPS introduces selective attrition as a problem. Model 5 therefore restricts the sample to individuals present in 1992. These estimates might be less comparable in terms of population covered, but are less likely to be affected by attrition. Indeed, when lifting this sample restriction more comparable estimates emerge across data sources.

### 2.5.3 Attrition

The previous results suggest that attrition might be an important problem. If the event of separation is connected to attrition, separation events will be recorded less often in longitudinal data. The BHPS employs various measures to stay in contact with respondents across time such as regular contact to increase commitment to the survey and the possibility to report household moves. Other measures include obtaining information on respondents who moved out from other household members. If whole households moved, neighbors, new residents, phone directories, shops, post offices, and contact persons provided by respondents in previous waves were consulted. ${ }^{1}$ Possibly due to these efforts, attrition rates are relatively low in the BHPS. Of the 6683 individuals in a union in Wave 15919 were interviewed in Wave 2 , an attrition rate of $11 \%$.

The BHPS declares all individual members of the households selected in Wave 1 to be "Original Sample Members". These members are followed across time individually, also if they move out of the original household. After separation, both original sample members are therefore followed to their new address/household. If after separation both partners drop out of the survey, there is normally no information available for them, which complicates performing an exhaustive test of how serious such attrition is for estimates of trends in union stability. However, we do have information on couples who separated and where at least one partner was interviewed again. This allows us to give some indication of whether the event of separation is related to attrition.

Of all couples present in the first wave, 128 couples ended up reporting a separation in Wave 2, but only 35 of these couples had both partners reporting the event in Wave 2 (not shown). In one case partners disagreed on whether they separated.

[^2]But, in 92 cases only one of the two partners was interviewed again in Wave 2. The other partners had dropped out of the survey. This is $36 \%$ of the in total 256 persons involved. This is already a high percentage compared to the $11 \%$ among coupled individuals in general, but attrition is likely to look even more selective if persons are counted where both partners of the couple dropped out of the survey. This issue cannot be checked with the data at hand.

Both retrospective and prospective union information therefore will have to deal with non-response, and it is possible that survey data, regardless of the mode of collection, over-reports union stability. However, if estimates of union stability from prospective data come from several waves of data, attrition is likely to be a more serious issue for estimates based on longitudinal data.

### 2.5.4 Comparing Retrospective and Prospective Reports of Trends in Union Stability

The previous exercises have shown that attrition and the underreporting of dissolved unions in prospective data are issues that should be taken into account when estimating trends in union stability. How serious are these issues when ignored? To illustrate the consequences, I employ all data from the BHPS family histories, which is a combination of retrospective and prospective data, and pool it with the retrospective histories from Understanding Society.

Table 2.3 shows estimates of Cox proportional hazard models explaining union dissolution. Model 1 reveals that the BHPS reports higher union stability as compared to Understanding Society. The analysis presented so far suggested that especially prospective information might underestimate union stability. To check whether this is right, Model 2 splits the observation period into time before 1992 and time from 1992-2008 (i.e. this variable is time-varying). Pre-1992 information in the BHPS comes from retrospective data, whereas post-1992 information comes mainly from prospective data. The results show that it is the period covered by prospective data where union stability is higher in the BHPS. Model 3 shows how the same conclusion is reached when also excluding unions from both sources that lasted less than a year.

Prospective and retrospective data sources hence produce different estimates of union stability. Do they lead to different conclusions regarding trends in union stability? Figure 2.1 indicates the share of women's unions still intact after 7 years of duration depending on whether the BHPS or Understanding Society is used. For both data sources one can observe that the oldest union cohorts were the most likely to still be with their partner after 7 years. However, estimates from both sources would come to diverging conclusions regarding the stability of more recent union cohorts. Based on the BHPS data recent union cohorts appear to be more stable than unions formed between 1985 and 1994. The retrospective data from Understanding Society, however, indicates decreasing stability of unions across all cohorts with a

Table 2.3 Pooled proportional hazard models explaining union dissolution of women's first unions

|  | Pooled data |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Haz.R | SE | Haz.R | SE | Haz.R | SE |
|  | Model 1 |  | Model 2 |  | Model 3 |  |
| Union cohort (Ref. 1975-79) |  |  |  |  |  |  |
| 1980-1984 | 1.27** | 0.07 | . | . | . | . |
| 1985-1989 | 1.49** | 0.08 | . | . | . | . |
| 1990-1994 | 1.59** | 0.09 | . | . | . | . |
| 1995-1999 | 1.75** | 0.10 | . | . | . | . |
| 2000-2004 | 2.18** | 0.13 | . | . | . | . |
| Dataset (Ref. Underst. Soc.) |  |  |  |  |  |  |
| BHPS | 0.89* | 0.04 | 0.93 | 0.05 | 0.96 | 0.05 |
| Time period |  |  |  |  |  |  |
| 1992-2008 (Ref. Pre-1992) |  |  | 2.48** | 0.07 | 2.15** | 0.06 |
| 1992-2008*BHPS |  |  | 0.80** | 0.06 | 0.82** | 0.06 |
| Controls | YES |  | YES |  | YES |  |
| Weights | YES |  | YES |  | YES |  |
| Sample BHPS from 2008 | YES |  | YES |  | YES |  |
| Prospective BHPS included | YES |  | YES |  | YES |  |
| Excluding spells $<1$ year | NO |  | NO |  | YES |  |
| N | 11,669 |  | 11,669 |  | 10,888 |  |

Controls: ethnicity, region, foreign born, education. $* * \mathrm{p}<.01 ; * \mathrm{p}<0.05$; Pooled data from BHPS and Understanding Society
Haz $R$ Hazard Ratio, SE Standard Error
possible stalling of that trend in the most recent cohort. Indeed, the break in the trend observed for the BHPS coincides with the switch from retrospective to prospective data in that data source. This is congruent with the suspicion that longitudinal prospective data might indeed overestimate union stability due to attrition and the underreporting of unions.

Models 1 and 2 of Table 2.4 reproduce the results in table form, and the subsequent models aim to make trends from both sources more comparable. Model 3 is based on a model where the sample of the BHPS is harmonized as much as possible to the Understanding Society sample: it only includes respondents interviewed in 2008 and controls for various background characteristics. Model 4 additionally includes sample weights provided by the BHPS to account for selective attrition across waves. In general, results do not become more similar across data sources. One exception is that after including sampling weights we now also observe decreased union stability among the youngest cohort in the BHPS, but the 1995-1999 union cohort remains oddly stable. It therefore has to be concluded that different data sources come to inconsistent conclusions regarding trends in union stability. I discuss what can still be said about trends in union stability in the final section of the chapter.


Fig. 2.1 Share of Women's First Unions Still Intact after 7 Years by Cohort and Dataset. Note. Data from British Household Panel Survey 1991-2008; N = 4026; Sample includes all respondents of BHPS and therewith differs from that of Table 2.3 for BHPS. Data from Understanding Society 2009 wave. $\mathrm{N}=8915$; Based on survival estimates using sts list in STATA. Weights included, but no controls

Table 2.4 Proportional hazard models explaining union dissolution of women's first unions

|  | Understanding society |  | British household panel survey |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Haz.R | SE | Haz.R | SE | Haz.R | SE | Haz.R | SE |
|  | Model 1 |  | Model 2 |  | Model 3 |  | Model 4 |  |
| Union cohort (Ref. 1975-79) |  |  |  |  |  |  |  |  |
| 1980-1984 | 1.36** | 0.08 | 1.23* | 0.10 | 1.12 | 0.12 | 1.09 | 0.15 |
| 1985-1989 | 1.57** | 0.09 | 1.48** | 0.12 | 1.34** | 0.14 | 1.30* | 0.17 |
| 1990-1994 | 1.77** | 0.10 | 1.51** | 0.13 | 1.34** | 0.14 | 1.18 | 0.17 |
| 1995-1999 | 2.04** | 0.12 | 1.23* | 0.11 | 1.03 | 0.12 | 1.07 | 0.15 |
| 2000-2004 | $2.37 * *$ | 0.15 | 1.32** | 0.13 | 1.33* | 0.17 | 1.68** | 0.27 |
| Controls | YES |  | NO |  | YES |  | YES |  |
| Attrition weights | N/A |  | NO |  | NO |  | YES |  |
| Sample 2008 | N/A |  | NO |  | YES |  | YES |  |
| N | 8915 |  | 4026 |  | 2131 |  | 2753 |  |

Controls: ethnicity, region, foreign born, education. $* * \mathrm{p}<.01 ; * \mathrm{p}<0.05$. Understanding society numbers include sample weights to take oversampling of certain subgroups into account

### 2.6 Discussion

Have unions become more or less stable over time in Britain? The answer appears to depend on the data source used. Prospective data indicates some signs of a reversal in the trend of increasing instability whereas retrospective data still paints a picture of ever less stable union cohorts. There are good reasons to doubt the validity of conclusions based on the prospective source of data: comparisons of retrospective and prospective data showed that a non-negligible number of dissolution events are "missing" from prospective reports and attrition appears directly related to separation events. Are there reasons to doubt the numbers based on retrospective union histories? Even though some events reported prospectively did not show up in retrospective information, these "missing" events were considerably smaller in number. Furthermore, different retrospective sources referring to the same target population delivered relatively consistent estimates of trends in union stability. If we take results based on retrospective data as the most likely to be valid, this would lead us to conclude that union stability has been increasing across cohorts, with a possible stall of that trend for the 2000-2004 union cohorts. There are a couple of qualifications to be made to that possible conclusion.

Firstly, even though the comparison of two retrospective histories presented in this chapter led to encouraging results, more research is needed to test to what extent retrospective unions provide biased information on trends in union stability. In particular, results on non-response raised concerns that surveys in general might under-report union dissolutions. Connecting survey estimates to administrative data might dramatically increase our understanding of how serious non-response is.

Secondly, the estimates presented in this chapter relied on a definition of unions that included co-residential unions and marriages only. On the one hand, the exclusion of LAT and non-residential relationships might have led to a picture of union stability that is not representative of all relationships that have an important impact on people's lives. On the other hand, the inclusion of all co-residential relationships might have given more importance to less committed relationships as compared to measures of marital stability. In this chapter, it was argued that co-residence is currently the best option available to filter committed from non-committed relationships, but applying other filters might lead to different estimates of union stability. A recommendation for future conceptual research is to work on measures of unions that might be better at such filtering. Conceptual and qualitative research also appears important to understand better how to prospectively measure cohabitation. In line with previous research (Manning and Smock 2005; Murphy 2000) I found that many cohabitations go unmeasured prospectively.

Finally, the most recent union cohort considered in this chapter already dates from 15 years ago at the time of writing. Crude divorce rates have dropped dramatically since 2006 in the United Kingdom: from 2.4 to 1.7 in 2015 (Eurostat ${ }^{2}$ ). There

[^3]might therefore be exciting changes in levels of union stability occurring, but we currently do not have the data to document them. There are very few countries that have recent retrospective union history modules available to do so. Administrative data might form a solution in a select number of countries, but more research is needed to determine how reliable estimates of union stability are from such sources. The main recommendations for the future are therefore: (1) to further encourage the cross-verification of sources and determine how to best measure trends in union stability; and (2) to invest in the collection of data on union histories and connect them to administrative data. Research on trends in union stability might therewith one day become an as fruitful source for understanding changes in society as research on marital stability once was.

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# Chapter 3 <br> On Increasing Divorce Risks 

Michael Wagner


#### Abstract

While intensive and ongoing research on the determinants of marital stability has resulted in the identification of a large number of risk factors, the question of why there has been a nearly continuous upward trend in divorce rates in many developed countries has yet to be answered. This upward trend continued over a period of more than one hundred years, and ended - at least in some countries - in the late twentieth century or early twenty-first century.

The aim of this paper is to review the theoretical concepts and the empirical findings of studies that have investigated historical trends in divorce rates. Some authors have argued that the quality of marriages has declined, while others have attributed this trend to a weakening of the barriers to divorce, or to increased opportunities to meet alternative partners. Theories of social change generally emphasize the role of either modernization or normative change in marital dissolution patterns. Given the evidence that the cohort and the period effects on the divorce rate cannot be explained by socioeconomic variables, it seems likely that increasing divorce rates are better explained by cultural than by socioeconomic changes.


Keywords Divorce • Separation • Historical trends • Theoretical framework • State of empirical research

### 3.1 Introduction ${ }^{1}$

The first demographic analyses of the historical time trends in divorce rates were carried out more than a century ago (Willcox 1897; Monahan 1940). Up to today, however, no consistent explanation for the long-term trend of rising divorce rates has been offered, and relatively few studies have addressed this issue. While

[^4][^5]intensive and ongoing research on the determinants of marital instability has resulted in the identification of a large number of risk factors, the question of why there has been a sharp and nearly continuous upward trend in divorce rates in many highly developed countries remains unanswered (see Härkönen 2014 for a review of this research). In many countries, this upward trend continued for more than one hundred years, beginning in the late nineteenth century and ending in the late twentieth century or early twenty-first century (Bennett 2017).

The historical development of divorce rates usually takes the form of an S-curve (Salvini and Vignoli 2011): i.e., divorce rates increase slowly, then more quickly, and then level off. However, the details of this process have varied greatly from country to country. It has, for example, been pointed out that in some countries, the trend of increasing divorce rates came to an end in the 1980s, and may have even turned around. The US seems to be a forerunner in this development, as divorce rates have been decreasing there since the 1980s (Fig. 3.4 in appendix, see Martin and Bumpass 1989; Cherlin 2010; Kennedy and Ruggles 2014; Rotz 2016). In some European countries, divorce rates are still increasing or do not seem to have reached an upper limit (Fig. 3.1). But divorce rates also declined between 2004 and 2015 in a number of European countries, including in the United Kingdom (2004: 2.8, 2015 : 1.7), Austria (2004: 2.4, 2015: 1.9), and Belgium (2004: 3.0, 2015: 2.2) (Divorces per 1000 persons, EUROSTAT 2018).

In the following, we will attempt to review the research on historical divorce trends. We start with a section that focuses on how these trends might be explained (section 3.2). First, we present some methodological considerations on the links between macro- and micro-level factors. Second, we concentrate on the micro level of a marriage, presenting theories that seek to explain how the partners' attributes and the external social environment are related to marital stability and divorce decisions. Third, we draw on these theories to derive some general hypotheses regarding the macro-level influences on the stability of marriages. Fourth, we examine these broad macro-level influences in more detail, and consider theoretical approaches that seek to explain how long-term socio-structural and cultural changes affect partnerships and the family.

In section 3.3, we discuss the current state of the empirical research on how socio-structural and cultural changes affect divorce rates. We start by exploring the dynamics of this process; i.e., whether period or cohort changes play the larger role. We then look at the four hypotheses developed in the previous section, and we summarize the results of the most influential empirical studies on the question of why divorce rates have been rising and then stabilizing. We cannot, of course, even give an approximately complete picture of all the factors that have contributed to the emergence of this historical trend. The mere fact that this trend started at the end of the nineteenth century, whereas the data and the methodological instruments needed to study such a trend were not developed until the 1980s, clearly restricts our analytical options. Given the societal importance of trends in divorce rates, there are fewer empirical studies on this topic than might be expected. We conclude with some observations and speculations about the forces that have been driving changes in divorce rates (section 3.4).


Fig. 3.1 (a-d) Crude Divorce Rates (per 1000 persons), 1960-2015 (EUROSTAT 2017). (a) Northern Europe (b) Central Europe (c) Southern Europe (d) Eastern Europe

### 3.2 How to Explain Historical Trends in Divorce Rates

Classical sociology was already concerned with the stability of marriage. Durkheim assumed that an increasing division of labor would strengthen marriage as an institution, whereas a liberalization of divorce laws would weaken it. Parsons observed that the increasing structural isolation of the conjugal family from the wider kinship leads to a reduction in support. Burgess and his colleagues argued that the stability of marriage was being undermined by increasing mobility, urbanization, individualization, and pressure on marital partners to adjust to each other (Wagner 1997). While these approaches provided valuable insights into the possible causes of the increase in divorce rates, an analytical multi-level model is needed to explain macrolevel variables like the divorce rate. It is, therefore, necessary to distinguish between macro- and micro-level theories, and theories that link these two levels. In sociology, such an analytical schema has been developed by Coleman (1986), and was recently adapted to demography by Billari (2015), who presented a "two-stage view of demography" (Fig. 3.2). Studies conducted at the macro level cannot explain population change, but they can provide novel empirical evidence. The causal relationships that underlie these relationships may be more fruitfully explored at the micro level. Thus, to explain how population structures develop and change, the investigation of actions and interactions at the micro level is needed. The two levels are linked through two types of causal mechanisms: situational mechanisms and transformational mechanisms. In the case of divorce, the transformational mechanisms are an aggregation of individual or dyadic divorce decisions that result in a certain divorce rate at a certain historical time (Fig. 3.2).


Fig. 3.2 The two-stage view of demography (Billari 2015; original Coleman 1986)

### 3.2.1 A Micro Model of Marital Instability

A starting point of every attempt to explain historical trends in divorce rates should be a basic decision model of marital instability. A decision model that is widely used to explain marital instability is derived from exchange theory (Thibaut and Kelley 1961; Levinger 1979; Lewis and Spanier 1979; for more details, see Åberg 2009). A marriage is considered as an exchange relationship (Fig. 3.3). Partners exchange different kinds of material and immaterial resources, and this exchange results in a certain level of mutual attractiveness. In particular, partners' marital investments result in a high level of dyadic commitment (Rusbult 1980). It is, however, assumed that the partners compare the benefits of an existing partnership with the expected benefits of alternative relationships or living arrangements. "The more attractive alternative is not necessarily another lover; it may be going it alone or living in groups other than a nuclear family" (Levinger 1979: 37f.). A marital relationship is dissolved if the benefits of alternative living arrangements exceed the benefits of the existing relationship. The subjective cost-benefit ratio that is applied to an existing marriage is often denoted as marital quality, which is considered a central explanatory factor of marital instability. Marital satisfaction is often used as an indicator of marital quality. Internal investments and barriers may increase the material, symbolic, and affectional costs associated with a dissolution or divorce, and these costs are taken into account in such decision processes (Levinger 1965). The sources of these barriers are located external to the individual, but are imposed on the individual, and may include feelings of obligation to dependent children or


Fig. 3.3 Exchange theory on marital instability. (Source: Lewis and Spanier (1979, 1982), modified)
to marital ties, moral religious proscriptions or external pressures from primary group affiliations (e.g., kin), community stigma (e.g., rural-urban), and legal and economic barriers (see Levinger 1965: 24f.). The basic exchange model used to explain marital instability differentiates between internal and external events or factors that determine a marital breakup, and includes three proximate concepts: marital quality, alternative attractions, and barriers. Most of these decision models do not distinguish between the decision to separate and its legitimization through divorce. As the separation is the crucial and decisive step of the dissolution process, we modified the original model by Lewis and Spanier (1979, 1982). However, the timing of and the explanatory factors for the two events might differ. For example, whether a separated couple is likely to divorce might depend on the costs of a divorce and the strength of external barriers, particularly the restrictions imposed by current divorce laws.

There are other micro models of marital instability that are extensions or variations of the social exchange model. A very prominent theory is the household economy model and its application to marital instability (Becker et al. 1977). This model assumes that couples separate when the utility they expect to derive from remaining married is lower than the utility they expect to derive from divorcing. Becker argued that a couple will seek to maximize the utility function of the household, and that task specialization in a marriage results in efficiency gains. When the skills of men and women become similar and women's earnings increase relative to men's earnings, the benefits the partners derive from marriage decrease, and, as a result, divorce rates increase. According to Becker, marriages are dissolved when the unions turn out to be mismatches that occurred because of a non-transparent partner market, an inefficient partner search, or an underinvestment in marriage-specific capital.

An extension of the social exchange model is the framing model (Esser 1993, 2002). Frames are defined as mental models of a situation or basic orientations in a certain situation. Esser (2002) differentiated between two frames: the framing of a marriage as a "good" marriage; and the framing of a marriage as failed. If the frame of a "good" marriage is valid, the partners do not evaluate their relationship, and thus do not rationally compare the benefits and the costs of their relationship. The dissolution process starts if one of the partners "defines" his or her marriage as "non-satisfying" or "bad." The partners then start to evaluate their chances of finding a new partner, or to calculate the costs of a divorce. The triggering event for a re-framing is a marital crisis in which the partners select a certain frame. The framing model of divorce is an example of a theory that combines rational decision models with action models rooted in symbolic interactionism.

Factors that indicate or change marital quality, alternatives, barriers, or marital investment levels are called divorce risks. These risks include socioeconomic factors, such as financial and social resources; and cultural factors, such as values, attitudes, and orientations at the individual and at the dyadic level.

### 3.2.2 Hypotheses

The historic trends in rising divorce rates can be explained by the following four hypotheses:

1. The quality hypothesis states that increasing divorce rates are a consequence of declines in the quality or the benefits of marriage. It has also been argued that increasing divorce rates are attributable to decreasing levels of investment in marriage; i.e., that partners who invest less in their marriage are less committed to it. It might therefore be argued that the more resources the partners keep for themselves, the more likely they are to be able to afford the costs of separation. Some scholars have observed that the types of resources that are exchanged in marriages change over time.
2. The hypothesis of decreasing barriers assumes that an increasing divorce rate is a consequence of a downward trend in the barriers to divorce. When the barriers decrease, the external costs of divorce or separation are reduced. For example, a liberalization of the divorce law or a decline in the stigmatization of divorcees is likely to reduce the symbolic costs of a divorce. If these symbolic costs are low, dissatisfied partners will need fewer resources to separate or divorce.
3. The hypothesis of an increasing legitimization of separation states that the length of time between separation and divorce, or the likelihood that a separation is followed by a divorce, might differ over historical time. The increased liberalization of divorce or the legitimization of marital separations might also alter this dynamic. But another potential explanation for shifts in this pattern is that an increasing proportion of separated partners are aiming to remarry. There is very little discussion of this perspective in the divorce literature (König 1978). It is, however, possible that the separation rates have been stable over historical time, but the divorce rates have not.
4. The opportunity hypothesis argues that divorce rates increase when alternate attractions (Levinger 1965) become more accessible to men and women living in a partnership, and the costs of entering into alternative living arrangements decrease. The availability of alternative partners as an important factor in the breakup of partnerships is also emphasized by the so-called macro-structural opportunity theory of marital dissolution (South et al. 2001). As divorce rates rise, the opportunities to find an alternative partner increase. Such a selfperpetuating process can also be driven by the intergenerational transmission of divorce risks. Moreover, alternative opportunities can emerge if the expected additional lifetime that could be used to find a partner is extended. Thus, the more time a person has to find a partner, the better are the alternative opportunities.

### 3.2.3 Two Types of Social Change: Cultural and SocioStructural Change

These four hypotheses focus on possible changes in divorce risks that are likely to be embedded in two types of societal change: cultural and socio-structural change. Approaches that refer to cultural change may, for example, focus on the values of the partners, the meaning of marriage, the partners' preferences and knowledge, and the external normative constraints. Approaches that refer to socio-structural change typically focus on individual resources, the distribution of these resources between the partners, and the division of labor. Socio-structural and cultural change may lead to a compositional change in the married population, and may change the social environment of married partnerships. Increasing divorce rates have been attributed to both of these broad societal changes (Perelli-Harris et al. 2017).

A cultural change perspective was advanced in the first half of the twentieth century by Ernest R. Groves in his book, "The Marriage Crisis" (Groves 1928). He argued that marriage adjusts to a changing environment, and that the whole purpose of marriage had changed, especially for young people: "(...) many young couples of today do not know what to make of their situation when they find obstacles to their pleasure-hunt cropping up; having entered marriage only for the sake of adding to their happiness, they may feel they have a right to break off their associations since its returns in pleasure are running low (...)" (Groves 1928: 36). Shortly thereafter, Monahan (1940) suggested that "a change in the family mores" might be responsible for the sharp upward trend in the US divorce rate that started at the end of the nineteenth century.

Another broad societal trend is related to socio-structural changes that can be captured under the heading of modernization. At the end of the nineteenth century, scholars were already arguing that the changing roles of women are responsible for rising divorce rates: "Divorces are most frequent where women are most emancipated" (Willcox 1897: 68). Important aspects of modernization are the expansion of higher education, welfare improvements, higher rates of female employment, and improved mobility. Balestrino et al. (2013) argued that in a post-industrial society, marriage is replaced by the welfare state and the market as the main providers of insurance and other commodities. "The only thing that may still make worthwhile to marry someone is the possibility to enjoy romantic love or at least an affectionate relationship. As a consequence, mismatches are not tolerated (...)." (Balestrino et al. 2013: 4). In classical sociology, it is assumed that modernization goes hand in hand with the differentiation of the society. This differentiation includes a "functional loss" of or a "functional change" in marriage. Thus, as people increasingly expect the exchange in a married partnership to be emotionally satisfying, the economic and instrumental functions of the marriage lose their significance. De Graaf and Kalmijn (2006a) call this a "psychologization process." To profit from an emotionally satisfying partnership, being in a non-marital partnership or a living-apart-together relationship is sufficient. It therefore appears that the meaning of marriage has changed, and that the heterogeneity of living arrangements with a partner has increased.

However, cultural change and socio-structural change (e.g., modernization) are not independent of each other. It has, for example, been observed that the level of modernization is positively correlated with the moral justifiability of divorce (Dülmer 2014). Inglehart and Welzel (2005) argued that in the post-industrialized era, people place more value on self-expression, and assume that having a strong family is no longer necessary for survival (Inglehart and Welzel 2005: 7).

There are several more specific models of cultural or socio-structural change that have been proposed to explain social changes in marriage and the family. The theory of the second demographic transition is a demographic and family change model that was formulated in 1986 (see Lesthaeghe 2014). It argues that the second demographic transition, which started in the 1960s, was fueled by a contraceptive revolution, a sexual revolution, and a sex revolution. The first revolution led to the adoption of efficient contraception; the second revolution led to a decrease in the age at first intercourse; while the third revolution led to a suspension of the male breadwinner model. It was further assumed that these revolutions were accompanied by increasing individualization, secularization (van de Kaa 1987), and post-materialism (Lesthaeghe 1992). Whereas the first demographic transition was characterized by low divorce rates, the second demographic transition was characterized by a rise in divorce rates and in earlier divorce (Lesthaeghe 2014). A crucial element of this model is the assumption that there is no state of equilibrium. Instead, it is assumed that new living arrangements will emerge, fertility rates will remain low, and the population will decline if it is not supplemented by immigration. Finally, the theory treats cultural factors as exogenous factors that stabilize social and economic trends.

Another prominent approach focuses on the long-term deinstitutionalization of marriage (Cherlin 2004). According to this model, some of the factors that drive this deinstitutionalization process are identical to the factors that have been identified as elements of the second demographic transition. Deinstitutionalization is defined as a weakening of social norms that shape the partners' behavior, accompanied by the emergence and spread of new living arrangements as alternatives to marriage. This process can occur in combination with several other trends associated with cultural change, such as shifts towards individualization, self-actualization, and higher levels of personal autonomy. The process of deinstitutionalization is accompanied by decreasing pressure on partners to marry or to stay together.

A combined cultural and socio-structural approach that focuses on the female revolution and increasing gender equality has been proposed by Esping-Andersen and Billari (2015). At the beginning of the process, the traditional family and the male breadwinner model prevail. Driven by the female revolution, and especially by the increasing participation of women in education and employment, a diffusion process of gender egalitarianism takes place that leads to a transition phase with more normative disorder and uncertainty. In this phase, divorce rates increase sharply. A new equilibrium can emerge only if two conditions are fulfilled: first, a critical mass of people have to promote gender equality; and, second, families have to adapt to new expectations. This process leads to a new phase of developed gender egalitarianism, which then becomes a dominant part of the social order. This
new normative order is associated with a decline in divorce rates. The result of this diffusion process is a (reversed) U-shaped association between divorce rates and indicators of gender equality.

A very specialized approach refers to so-called self-reinforcing processes. According to this approach, the likelihood of a single divorce depends on the divorce rate or the proportion of divorcees in the couple's social environment. It is assumed that individual decisions to perform a certain behavior depend on the number of individuals who exhibit this behavior. This is also the central assumption of threshold models (Granovetter 1978). Another potential self-reinforcing process is the intergenerational transmission of divorce; i.e., a process in which divorce rates are transmitted from generation to generation. Heaton (2002) argued that the intergenerational transmission process has created a feedback loop.

Finally, selectivity processes might be relevant, as certain macro conditions that are perceived as jeopardizing marriage might prevent people from marrying. Under such conditions, it is likely that only people who are in stable relationships will choose to marry. This tendency might lead to a compositional change in the married population, which could in turn result in decreasing divorce rates (Martin and Bumpass 1989; Kennedy and Ruggles 2014).

### 3.3 Empirical Findings

In this section, we will focus on empirical micro-level studies that examined to what extent period or cohort effects are explained by marital quality, alternative opportunities, or barriers to marriage. Micro studies designed to investigate changing divorce rates are often performed in three steps. The exploratory first step is to analyze whether certain factors are related to the divorce rate. For example, many studies have investigated whether women's employment status is significantly related to the divorce rate. Recently, numerous studies on the socio-structural determinants of divorce have been published. If such a divorce risk is identified, a second step is needed to check whether the prevalence of this factor has changed over historical time, or whether the direction or the strength of the association between this factor and the divorce rate has changed over historical time (Heaton 2002). In the last step, the question of whether period or cohort differences in divorce rates can be explained by this factor or its association with the divorce rate is answered.

### 3.3.1 Explanation of Cohort and Period Effects

Period effects are proxies for current influences, whereas cohort effects are based on past influences. The question is not whether these effects really exist, but which type of effect is stronger. When the period effects in a given year are strong, they may change the historical trend in divorce rates. These effects can influence marriages of
any duration at a particular point in time as a consequence of events such as the start of a severe economic recession or a war, or a change in the divorce law. Monahan (1940) called this explanatory perspective the "Situational Aspect". He further introduced the "Biographical Aspect of Divorce", stating "that the time at which a marriage is contracted has important bearing upon the success of the marriage" (Monahan 1940). Here, Monahan identified cohort effects. Cohort effects are assumed to exist if marriages are more or less vulnerable from the start, because, for example, people are marrying during periods in which the partner market is unfavorable, resulting in a high proportion of unfavorable partner matches. Cohort effects have thus been described as a "kind of moving average of period effects" (Wils 1990). Two types of cohort changes can be differentiated: compositional changes and behavioral changes. Compositional effects can result from a change in the prevalence of divorce risks among the married. Behavioral effects occur if the size or the direction of individual risk factors varies according to cohort membership.

One of the first studies that investigated whether historical divorce trends can be described as period or cohort effects was conducted by Carlson (1979) for the US. He argued that the baby boom cohorts are responsible for rising divorce rates. Preston and McDonald (1979) also found evidence of strong cohort effects, while Ono (1999) later showed that the rate of marital dissolution varies by period and marriage cohort. These scholars avoided the identification problem by using direct measures for one of the three time dimensions. The findings of Carlson (1979) were not confirmed by Thornton and Rodgers (1987), who argued that period effects dominated cohort effects. Thornton and Rodgers (1987) found that in the US, during the historical periods of the 1930s and 1970s, rapid changes in the divorce rates affected all marriage cohorts, birth cohorts, and age and duration groups in similar ways. Similarly, Lutz et al. (1991) showed for Finland that "period rather than cohort effects have dominated the increase in divorce." They used aggregate data (Finnish vital statistics) and estimated a duration-period-cohort (DPC) model that isolates the factors that are likely to affect divorce rates. However, it cannot be ruled out that the observed period effects simply reflect fluctuations of a long-term trend that could be explained by either cohort or period effects (Thornton and Rodgers 1987).

A serious disadvantage of using period measures has to do with the timing of separation or divorce in the life course. On the one hand, if divorce is postponed to higher ages, divorce rates will be underestimated. Scholars have found evidence of a "gray divorce revolution;" i.e., an all-time high in the rate of later life divorces (Brown and Wright 2017). In light of this trend, it is important to keep in mind that measures may be influenced by timing effects. If divorce increasingly occurs later in marriage, period divorce measures will be misleading (Martin and Bumpass 1989: 39; Kennedy and Ruggles 2014). On the other hand, during periods when divorce rates are rising sharply, divorce is very likely to take place earlier in the life course, which can lead to an overestimation of the "real" divorce intensity (Arránz Becker 2015: 530). It thus appears that the increase in divorce rates can be partly
explained by an accumulation of divorces in the younger age groups, and that the leveling off of or the decrease in divorce rates may be due to a delay effect.

Many scholars have summarized these findings by concluding that period effects are stronger than cohort effects (Cherlin 1992:32; Härkönen 2014; Lyngstad and Jalovaara 2010; Villiger 2017). However, this statement is not fully justified. Most studies that considered changes in the divorce rates controlled for the year of birth, the year of marriage, or the historical period. These types of studies generally found that either the cohort or the period variables had strong effects. Typically, clear-cut period effects are observed following changes in the divorce law or recessions. The findings of analyses by Cohen (2014) conducted for the US for the period from 2008 to 2011 suggest that the recession had a negative effect on divorce rates. But the claim that period effects exist might be less plausible when a longer period of time is considered. Previous research based on micro data found either significant period effects (e.g., Goldstein 1999; Heaton 2002; Kalmijn et al. 2004; Ruggles 1997a; South 2001) or significant cohort effects (e.g., Diekmann and Engelhardt 1999; Diekmann and Klein 1991; Teachman 2002; De Graaf and Kalmijn 2006b; Härkönen and Dronkers 2006; Wagner et al. 2015); or considered both cohort and period measures (e.g., Salvini and Vignoli 2011; Villiger 2017; Wolfinger 2011).

### 3.3.2 Divorce Risks

### 3.3.2 1 Marital Quality and Its Predictors

In this chapter, we will look at studies that examined indicators of the partners' evaluations of their marriage, like marital satisfaction; as well as interaction variables and socioeconomic and cultural variables that are likely to affect marital quality. It is well established that marital satisfaction is one of the strongest predictors of marital dissolution and divorce, and that the role of marital satisfaction tends to be especially large when the barriers to divorce are low and there are attractive alternative opportunities. In Italy, for example, the barriers to divorce are high, which leads to large numbers of separations and few divorces. It can be argued that increasing divorce rates result from a continuously increasing proportion of unhappy marriages.

The first studies that examined the influence of changing values or attitudes on separation and divorce were not carried out until the 1980s. Changes in the value placed on self-realization or in attitudes about the importance of marriage might affect how much partners invest in their relationship, which could in turn have an impact on marital quality. Thornton (1985) showed that while being affiliated with Catholicism or fundamentalist Protestantism is associated with reduced approval of marital dissolution, attitudes toward dissolution have little influence on subsequent rates of dissolution. Amato et al. (2003) investigated changes in marital quality in the US between 1980 and 2000. They found that although there were no significant changes in marital happiness and divorce proneness over this period, there was a
significant decline in marital interactions. They concluded that some trends lead to increased marital quality, while other trends lead to decreased marital quality (Amato et al. 2003). In light of these findings, it is unlikely that changes in marital quality help to explain rising divorce rates. However, since divorce rates have been shown to be lower among couples characterized by cultural homogamy or a shared religious affiliation (e.g., Kalmijn 2007; Wagner and Weiß 2003), it is evident that cultural variables influence the stability of marriages.

The crucial question is whether cultural variables or the prevalence of "bad" marriages can explain cohort or period effects. Kalmijn et al. (2004) have shown for the Netherlands that having emancipatory values positively affects dissolution rates. But strong period effects persist if this variable is included in multiple regression models. Esser (2002) showed that a variable that indicates whether the respondents have ever experienced a marital crisis contributes substantially to the explanation of cohort effects on divorce rates. This finding provides some support for the framing model. So far, the popular thesis that individualization processes are responsible for increasing divorce rates has not been examined.

Age at marriage has been shown to be positively associated with marital stability. It appears to be among the most important predictors of marital stability, independent of the historical period (Thornton and Rodgers 1987; Martin and Bumpass 1989; Lampard 2013). A higher age at marriage is clearly associated with higher marital quality, as factors such as the partners' maturity, vulnerability to rapid changes during (late) adolescence, competence to take on marital roles, partner search time, and financial resources vary depending on their age at marriage, and should influence the quality of their marital interactions and satisfaction levels (Amato et al. 2003; Abalos 2017).

While many studies have shown that age at marriage does not explain increasing divorce rates, there is some evidence that it accounts for decreasing divorce rates, at least in the US. Although Goldstein (1999) showed that age at marriage does not explain the levelling off of divorce rates, Heaton (2002) stated: "All of the decline on dissolution can be accounted for by the rising age at marriage." Rotz (2016) argued that the increase in the age at marriage among women is the main proximate cause of declining divorce rates in the US (see also Kennedy and Ruggles 2014).

The educational level of the partners is an important individual resource, as it is a proxy for economic, cultural, and social capital, and is related to holding more liberal opinions. Highly educated men and women have better labor market opportunities, but they also can better afford the costs of a separation than their less educated counterparts. The educational level is a standard variable in studies that focus on multiple divorce risks. No study has found that cohort or period effects are reduced if the educational level is controlled for (e.g., Wagner et al. 2015), and there is no empirical evidence that educational attainment among women helps explain why divorce rates in the US have levelled off (Goldstein 1999). Nevertheless, there is some empirical evidence supporting the so-called "trendsetters' hypothesis" (Salvini and Vignoli 2011), which states that members of the higher social strata were more likely to divorce in earlier historical periods, and that members of the lower social strata followed or are currently catching up. Using Swiss register data,

Villiger (2017) showed that the divorce rate increased more among the lower educational strata than among the highest educational stratum. For the US, Martin and Bumpass (1989:43) found that the "likelihood of separation increased at lower education levels," and that education "has become a more important independent factor affecting marital disruption." Heaton (2002) and Raley and Bumpass (2003) found similar results for the US. Härkönen and Dronkers (2006) reported that the educational gradient became increasingly negative in many European countries and the US. Bernardi and Martínez-Pastor (2011) found for Spain that the effect of education was weaker during the historical period that followed the reform of divorce law. An analysis for the Netherlands showed that the effect of education changed from positive to negative (De Graaf and Kalmijn 2006b). In sum, there is a clear evidence of a behavioral effect of education on the divorce rate (Matysiak et al. 2014).

A nearly classical explanation for increasing divorce rates attributes this trend to the rise in female employment and the associated decline in the sexual division of labor. First, it has been observed that female employment improves the financial resources of one or both partners, which might in turn lead to increased marital quality and a decreased likelihood of separating. Ruggles (1997b) discussed the mechanisms that link female employment and marital instability. One of these proposed mechanisms rests on the assumption that increasing female employment makes it less likely that couples will have a traditional division of labor. Less mutual dependence may, however, be associated with decreased marital quality ("interdependence hypothesis"). Another potential mechanism is based on the assumption that if the female partner is employed, the financial risks of separating are reduced ("economic-opportunity hypothesis"), and the costs of and the barriers to divorcing are also lower (Ruggles 1997a; Preston 1997) (3). Yet another argument is that when a woman is not a housewife or a full-time mother, her (time) investments in the relationship may be reduced (van Damme and Kalmijn 2014) (4).

The results of empirical research on the effects of female employment on marital instability have been highly contradictory (Oppenheimer 1997). It is unclear whether female employment causes marital instability, given that either selection or anticipation might be responsible for the association between the two factors (Stevenson and Wolfers 2007; Vignoli et al. 2018). The findings of macro and micro studies on the association between female employment and marital stability have differed (see Ruggles 1997b), as have the findings of analyses of this relationship across countries and historical time. A macro study by South (1985) showed that the female labor force participation rate is positively related to the divorce rate. South (2001) later found that the positive impact of female employment on marital dissolution increased over historical time. Research for Spain indicated that the effect of female employment on marital dissolution decreased after 1981, when there was a liberalization of divorce law (Bernardi and Martínez-Pastor 2011). While Ruggles (1997a) found that male and female employment and separation/ divorce are associated at the district level, he acknowledged that because his analysis was based on aggregated data, the causality of this relationship was unclear. He
thus observed that "the rise in both female market-labor participation and marital instability could be the result of attitudinal changes. The decline of patriarchal authority within the home and the increase of individualistic values stressing selffulfillment may have resulted in a decline of social sanctions against both marital breakup and female work" (Ruggles 1997a: 464). Under this scenario, female work and marital instability may no longer be causally linked. Kalmijn (2007) found that women's employment is associated with high divorce rates in Europe. Killewald (2016) showed for two marriage cohorts in the US (married before and after 1975) that the divorce rate is not affected by female employment, and that the wife's financial situation does not matter. Instead, the results indicated that even for the cohort born after 1975, the breadwinner model is still relevant, as the probability of a divorce is significantly reduced if the husband is fully employed. These findings are partially in line with those of Vignoli et al. (2018), who found that female employment is not associated with marital stability in Germany and Hungary. Moreover, there is clear empirical evidence that in many countries, female employment is not related to marital stability, and that female employment does not account for the cohort effects on the divorce rate (Wagner et al. 2015).

### 3.3.2.2 The Hypothesis of Decreasing Barriers

Cultural changes, and especially changes in values, lead to a liberalization of marriage norms, which is in turn likely to reduce divorce barriers. While secularization processes might result in a liberalization of religious norms, the most fundamental expression of a liberalization of the norms that regulate partnership and marriages is a change in divorce law. There are three major steps in this liberalization process: the legalization of divorce, the introduction of no-fault grounds for divorce (e.g., mutual consent), and the introduction of unilateral divorce (i.e., it is no longer necessary for both spouses to agree to the divorce). Such legal reforms clearly result in a decrease in the barriers to divorce, and thus make divorce less costly. Friedberg (1998) showed that unilateral divorce accounted for $17 \%$ of the overall increase in divorce between 1968 and 1988 in the US. Using administrative data from 18 European countries, González and Viitanen (2006), estimated that legal reforms accounted for about 20 percent of the increase in divorce rates in Europe between 1960 and 2002. But the question of whether the increase in divorce rates is mainly attributable to changes in divorce laws has yet to be resolved (González 2014). One of the few studies that investigated the effects of divorce law reform was performed by Kneip and Bauer (2009). The authors showed that in Western European countries, the spread of de facto unilateral divorce practices led to a sustained increase in the divorce rate, whereas the expansion of legal rights to unilateral divorce had only short-term effects. Moreover, they found that divorce rates started rising before the legal changes occurred. Therefore, it is likely that the cultural acceptance of divorce is a third variable that affects both divorce rates and divorce law (Hiller and Recoules 2013).

It has also been argued that irrespective of changes in the divorce law, divorce is becoming more normal. As divorce rates increase, the threshold for deciding to divorce decreases ("threshold hypothesis," see De Graaf and Kalmijn 2006a). An examination of cohort differences in divorce motives in the Netherlands revealed that citing extreme forms of behavior as reasons for divorce (e.g. infidelity, physical violence, drug and alcohol abuse) has become less common (De Graaf and Kalmijn 2006b).

### 3.3.2.3 The Opportunity Hypothesis

South (1985) performed a time-series analysis. He argued that the divorce rate in a given year is determined by the level of divorce in the preceding year; i.e., the higher the level of divorce is, the more liberal the climate surrounding divorce is assumed to be, and the larger the pool of marriageable partners is likely to be. While such findings seem to support the assumption that self-reinforcing processes contribute to increasing divorce rates, they do not explain decreasing divorce rates.

Furthermore, only a handful of studies have focused on district-level sex ratios and their connection with individual dissolution risks (e.g., South 1985; South and Lloyd 1995; South et al. 2001; Lyngstad 2011). Moreover, the main findings of these studies seem to differ according to the units of measurement and methods of analysis used. Based on register data from Norway, Lyngstad found that unbalanced sex ratios have a small negative effect on divorce rates, and, thus, that the greater availability of alternative partners seems to stabilize marriages at the micro level. One explanation for this finding is that the partner in a disadvantageous partner market tends to increase his or her marital investments, which in turn leads to a higher level of commitment. Especially in the German context, there appears to be a gap in research on local sex ratios and their potential impact on relationship instability (Stauder 2015: 429, Wagner et al. 2015: 224). At least, Obersneider et al. (2018) have shown that there is no significant effect of unbalanced sex ratios at the level of German districts on union dissolution. Taken this into account, it is not surprising that there are no studies that investigate the association between changes in divorce rates and sex ratio changes.

### 3.3.2.4 The Hypothesis of the Increasing Legitimization of Separation

Separation and divorce: In Italy, a marriage breakdown is much more likely to be indicated by a separation than by a divorce (Vignoli and Ferro 2009). However, there is very little research on the relationship between separation and legal divorce. The event of separation can be more harmful and traumatic for couples than the subsequent legalization of the separation (Cherlin 1992). A study for France found that the length of time between separation and divorce changed little between 1968 and 1985 (Leridon 1990). Martin and Bumpass (1989) estimated for the US that five
percent of each marriage cohort separate without divorcing. Recently, Bennett (2017) argued that the "extent to which a marital separation is followed by divorce varies considerably among subgroups." Two years after a separation, $32 \%$ of whites have yet to divorce. The period of time between separation and legal divorce tends to be much longer for African Americans than it is for whites. The lower a couple's socioeconomic status is, the longer the period of time between separation and divorce is likely to be. For Germany, preliminary results have revealed that the length of time between the subjective end of a union and divorce decreases significantly from marriage cohort to marriage cohort. Subjective union dissolution was measured by the question: "How long have you been together with 'name of the partner'." Educational level and the presence of children were found to positively affect the length of time between the partner's definition of the end of the relationship and divorce (Table 3.1 in appendix). While there appears to be a cohort trend toward a decreasing length of time between union dissolution and divorce, sociostructual factors seem to contribute to a postponement of divorce after the subjective end of the relationship. Although these findings do not justify the conclusion that the factors that drive divorce rates are changing, they do indicate that the sociostructural composition of a married couple affects their probability or timing of divorce following a union dissolution.

### 3.4 Discussion

The aim of this contribution was to qualitatively summarize the empirical findings on the factors that can influence historical trends in divorce rates. We started with a general model on the relationship between the macro and the micro level, which helps to organize theoretical strategies. Based on exchange theory, we further delineated a micro model of marital stability that distinguishes between the separation of a couple and the legitimization of the separation through divorce. The framing and the household economy approaches provide extensions or variations of the exchange theory. From this theoretical framework, we derived hypotheses that seek to explain changes in divorce rates.

Our analysis showed that the existing research on this topic did not really distinguish between separation and the institutionalization or societal legitimation of separation through divorce. This is likely because in most contexts, the only available data on divorce or separation are from official statistics. Most of the existing micro studies failed to measure different states and events in the separation process, including divorce proneness, the subjective end of a partnership, the splitting up of households, and legal divorce. Thus, the number of unhappy but stable marriages is unknown, and we cannot assume that marital separations are increasing because divorce rates are rising. It might therefore be more appropriate to investigate the conditions under which couples separate, rather than focusing on divorce.

The dissolution process at the micro level of the dyad is likely to be influenced by a range of factors. The need to integrate this process into a multilevel framework that specifies how the macro and the micro level are linked to each other, while also accounting for changing socio-structural and cultural conditions, adds to the explanatory complexity. We have to acknowledge that the explanatory power of certain factors differs across historical time, or is applicable to increasing (or decreasing) divorce rates only. Moreover, it is obvious that the state of empirical research is fragmentary. Much of the existing empirical research is not driven by theory, and uses indicators that have an ambiguous meaning, or that are linked to different theoretical concepts. While official national statistics allow us to trace historical divorce rates back to the nineteenth century, such data cannot be used to perform a more detailed analysis of the social forces that have led to changes in divorce rates. Largescale projects with a representative database that allow researchers to perform detailed analyses of marital instability were not started in the US or in Europe until the 1970s or the 1980s. Although theory-driven empirical research on this topic is lacking, many plausible hypotheses regarding the factors that have driven the upward trend in divorce rates have been proposed. Unfortunately, very few studies have tried to test these hypotheses.

There is very little empirical evidence that the quality hypothesis holds. There is no reason to believe that rising divorce rates are due to an upward trend in marital conflict, changes in the interactions of the partners, or increases in the partners' resources. Although many studies have found that these factors are associated with marital stability at the micro level, their results do not prove that these factors are associated with changes in the divorce rates at the macro level. Moreover, many studies have shown that the central socioeconomic variables do not mediate the association between cohort or period variables on the one hand, and separation or divorce on the other.

Nevertheless, we cannot rule out the possibility that the historical increase in women's educational and employment status has had indirect effects on divorce rates at the macro level. For example, these socioeconomic changes might have induced cultural changes that led to rising divorce rates, such as the individualization of women, the liberalization of divorce law, and a decline in the stigmatization of divorcees. This argumentation points to the relevance of certain diffusion processes, and thus an even more complicated explanation of historical divorce trends. The direction of the causal relationships is, of course, disputable, but the model presented by Esping-Andersen and Billari (2015), which we outlined above, could provide an appropriate theoretical framework for such a diffusion process.

The role of culture in explaining divorce trends has been neglected by empirical research. Cultural shifts such as the deinstitutionalization of marriage, processes of individualization, and changes in values, are often cited in explanations of divorce
trends, but the acknowledgement of the importance of these developments seldom results in an appropriate research design. Cultural change could be a strong explanatory factor, as it affects marital stability via marital quality and via external normative barriers. In contrast, socio-structural factors, which are mainly individual resources, generally affect marital stability via marital quality alone. There is considerable empirical evidence that the costs of divorce have decreased. A liberalization of the divorce law that affects the barriers to divorce is accompanied by a diffusion process of liberal ideas and attitudes. The problem with the deinstitutionalization thesis is that using it to explain decreasing divorce rates is not easy. It can, however, be applied in this context if we assume that an increasing age at marriage is a consequence of this deinstitutionalization process, and that a higher age at marriage leads to more stable marriages. Moreover, we can assume that the deinstitutionalization of marriage is accompanied by increasing opportunities to enter into alternative living arrangements outside of marriage.

In the US and in many European countries, divorce rates are no longer increasing. This trend is best explained by a diffusion process modeled by Esping-Andersen and Billari (2015), which focuses on the female revolution and increasing gender egalitarianism. A counterargument to Esping-Andersen and Billari is that changes in the employment or educational levels of women cannot explain cohort or period effects on the divorce rate. The shift in values and norms that accompanies the female revolution may, however, have a stronger effect on marital stability than women's educational levels or employment status. An advantage of this model is that it can be easily related to the theory of the second demographic transition and the deinstitutionalization thesis.

Modeling feedback loops and self-reinforcing processes could lead to a breakthrough in research on this topic. For a number of reasons, it seems obvious that the more divorced people there are, the more marriages there will be that end in divorce. However, such processes have not yet been examined in detail. A similar argument can be made with respect to the transmission hypothesis. How many couples separate because their parents divorced? Is the intergenerational transmission of divorce risks a process that will eventually reach an equilibrium?

Based on our current knowledge, it is not possible to develop any reliable predictions about future trends in divorce rates. First, micro and macro studies have to be integrated more systematically. Second, cultural and socio-structural explanations need to be combined. It is likely that socioeconomic subgroups differ not only in terms of their individual resources, but in terms of their attitudes, their values, and the meaning they assign to marriage (Seltzer et al. 2005).

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## Appendix



Fig. 3.4 Crude Divorce Rates in the USA and EU-28 Countries (No. of Divorces per 1000 Population), 1960 to 2015. (Source: Clarke (1993, 1995), EUROSTAT (2017), National Center for Health Statistics (n.d.), Plateris (1978)

Table 3.1 Determinants of the length of time between the subjective end of the relationship and divorce (cox regression) ${ }^{\text {a }}$

| Variables |  |  |
| :--- | :--- | :--- |
| Education <br> (Ref.: Low) <br> Intermediate <br> High |  |  |
| Marriage cohort (Ref.: 1986-1995) | $0.77 * * *$ | $(0.10)$ |
| 1996-2005 | $1.29 * *$ | $(0.10)$ |
| 2006-2017 | $1.34 * *$ | $(0.15)$ |
| Age at end of relationship | $0.98 *$ | $(0.01)$ |
| Children at end of relationship <br> (Ref.: No) | $0.61 * * *$ | $(0.07)$ |
| Observations | 591 |  |

${ }^{a}$ Analysis is based on data from the first nine waves of the German Family Panel (pairfam), release 9.1 (see Brüderl et al. 2018)
${ }^{\mathrm{b}}$ Low $=$ left school without degree or Volks-/ Hauptschulabschluss; intermediate $=$ lower or intermediate GDR (POS. 8./9./10.) or Realschulabschluss; high $=($ Fach -$)$ Abitur or FOS or EOS; coefficients as hazard ratios; exponentiated standard errors in parentheses $* * * p<0.01, * * p<0.05, * p<0.1$. Own calculations

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# Chapter 4 <br> Divorce Trends in Seven Countries Over the Long Transition from State Socialism: 1981-2004 

Juho Härkönen, Sunnee Billingsley, and Maria Hornung


#### Abstract

The collapse of communism was a defining geopolitical event of latetwentieth century Europe, with well-documented economic, social, and political implications. Yet there is a striking absence of research on how it influenced divorce. The objective of this study is to provide an exploratory analysis of trends in divorce over the long transition from communism-starting from the decline of the communist economy in the 1980s and ending with economic revival-in seven countries: Bulgaria, Estonia, Hungary, Lithuania, Poland, Romania, and Russia. We discuss how the transition could be expected to either increase or decrease divorce risks. We analyze retrospective micro-level data on first marriages from the Changing Life Course Regimes in Eastern Europe (CLiCR) dataset. Based on our event-history analyses, we find that divorce rates increased in each country at some stage during the long transition and these increases cannot be explained by compositional change of the marriages. However, no uniform pattern emerged in the timing and duration of the increase in divorce risk. This striking variation leads us to conclude that even the effect of major societal ruptures is contextually contingent.


Keywords Divorce • Central and Eastern Europe • Social change • Transition from communism • Event history analysis

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### 4.1 Introduction

The fall of communism was one of the defining geopolitical events of late-twentieth century Europe. Besides re-drawing Europe's geopolitical map, the transition from communism to a market economy had a profound impact on the daily lives and living conditions of the populations experiencing it, and previous research has shown how it shaped, among other outcomes, social inequality and social mobility (Gerber and Hout 2004), population health (Billingsley 2011; Brainerd 1998), and marriage and fertility (Billingsley 2010; Billingsley and Duntava 2017; Gerber and Berman 2010; Nedoluzhko and Agadjanian 2015).

Did the transition also affect divorce? The transition from communism meant radical social, political and economic transformations from previous social and economic structures and relations, institutional support systems, and norms. Such societal unravelling and the corresponding instabilities for everyday life likely spill over into marital instability. Yet, as will be discussed in more detail below, many of the repercussions may have had the opposite effect and reduced divorce, for example by increasing economic dependence on the family or by heightening the barriers to divorce. Given the potential impacts of the transition on the family domain, and its documented effects on family formation, there is a striking absence of research on divorce trends in these societies.

The objective of our study is to provide an exploratory analysis of divorce risks between 1981 and 2004 in seven post-communist societies: Bulgaria, Estonia, Hungary, Lithuania, Poland, Romania, and Russia. Our study provides the first cross-nationally comparative analyses of micro-level data on divorce trends over the transition from communism to market-based economies. Previous research on divorce during this period have best documented divorce trends in Russia (Avdeev and Monnier 2000; Solodnikov 2016) and Hungary (Bukodi and Róbert 2003; Spéder 2005; Spéder and Kamarás 2008), and other studies include single-country analyses of divorce trends in Bulgaria (Philipov and Jasilioniene 2008), and Romania (Mureşan et al. 2008), as well as socio-economic determinants of divorce risks in Estonia (Rootalu 2010) and Lithuania (Maslauskaite et al. 2015). To date, the only comparative study on divorce was based on aggregated data (Philipov and Dorbritz 2003).

We asked three questions. First, how did divorce rates develop in the seven countries over the years of transition from state socialism to market-based economies, from 1981 to 2004? These years cover the gradual unraveling of the communist system and the perestroika years, the years of institutional and political change, as well as the immediate aftermath, and stabilization of new political and economic systems. In other words, we treat the "long" transition as a gradual process rather than just a discrete event. Second, given the well-documented changes in family formation behavior especially, can any period differences in divorce rates be linked to demographic or compositional features of marriages? Trends based on aggregated data, such as those reported by Philipov and Dorbritz (2003), are suspect to changes in the compositional features of marriages. Our event history analyses on
harmonized retrospective marital history data from the Changing Life Course Regimes in Eastern Europe (CLiCR) dataset allow us to compare estimated trends net of compositional change. Third, we asked whether any trends detected were similar across the seven countries. As will be discussed in more detail below, some features of the transition were shared by all countries, whereas others-such as value and gender norm changes (Sobotka 2011) and the success of market reforms (Bohle and Greskovits 2007) showed more variation, leading to potentially idiosyncratic responses in divorce rates.

### 4.2 Background

We focus on seven former communist countries that all experienced a transition from a state socialist regime to a market-based economy and democratic political system: Bulgaria, Estonia, Hungary, Lithuania, Poland, Romania and Russia. The transition began with the revolutions of 1989, beginning first in Poland in the summer and spreading to Hungary, Bulgaria and Romania. Estonia and Lithuania established independence from the Soviet Union in September 1991 and the Soviet Union ceased to exist in December 1991, resulting in the establishment of the Russian Federation. This quick pace of events in the 1989-1991 time period was preceded by the birth of the Solidary labor party in 1980 in Poland (which was stifled before independence) and a period of policy reform and openness, perestroika and glasnost, in the Soviet Union that began in 1985. A major impulse for change in the political systems was economic difficulty beginning in the late 1970s.

The transition from communism to a market economy led to major change in politics, society and economic conditions in post-socialist countries (Blanchard 1997; Gerber and Hout 2009). While the socialist system provided job and housing security, a basic income, and financial support to families as well as high availability of childcare, the transition disrupted many of those systems (Barr 2001; Fajth 1999; Frejka 2008; Stankuniene and Jasilioniene 2008). The post-socialist era brought along a decrease in state support and an increased liberalization of the market, which caused an economic crisis in many countries and worsened economic and housing security (Gimpelson 2001) as well as the compatibility of paid and unpaid work for women (Pascall and Manning 2000; Szelewa and Polakowski 2008).

Up until the 1990s, the economies of the Eastern Bloc were interdependent through membership to the Council for Mutual Economic Assistance (COMECON), which was led by the Soviet Union. The collapse of communism and COMECON led to economic decline in every associated country. Figure 4.1 shows that economic difficulties varied, however, in terms of depth and length. The Central and Eastern European (CEE) countries we study all saw a relatively small decline in GDP per capita by 1991. Poland experienced the quickest rebound and steepest economic growth after 1991. Hungary stabilized and saw economic growth steadily after 1991, outperforming all others by 1992. Bulgaria's initial economic decline in


Fig. 4.1 GDP per capita in purchasing power parity (2012 international \$). (TransMonEE 2012)
the early 1990s was minimal, but it experienced a greater recession in 1996 and 1997. Romania's economic recovery mirrored Bulgaria's, except that the economic slowdown occurred from 1997 to 1999. The countries belonging to the former Soviet Union (FSU) saw much deeper recessions in the early 1990s. Both Baltic countries experienced a fast decline and recovery was clearly evident by 1995 and mostly steady thereafter. Russia, on the other hand, did not show signs of real recovery until 1999.

In Russia, the liberalization of the market led to inflation, recession, unpaid wages, and downward mobility and unemployment (Blanchard 1997; Gerber and Hout 2009). Economic recessions and high inflation also characterized stages of the transition in Bulgaria, Estonia, Lithuania, and Romania, but to a somewhat lesser extent in Hungary and Poland (Bohle and Greskovits 2007; Koytcheva and Philipov 2008; Maslauskaite et al. 2015; Mureşan et al. 2008; Robila 2004; Spéder and Kamarás 2008). Similarly, compared to Russia, where the economic transformation worsened the employment situation for women and increased the gender pay gap, women in other Eastern European countries (Bulgaria, Estonia, Poland, Hungary) gained substantially relative to men (Spéder and Kamarás 2008; Brainerd 2000).

### 4.3 Divorce Legislation and Trends

Divorce rates fluctuated across the communist countries already before the transition. The liberalization of divorce laws in the Soviet Union in the mid-1960s in particular was followed by a general increase in divorce rates (Solodnikov 2016). Whereas most of the communist countries maintained liberal divorce laws from this time onwards and divorce rates continued to increase, divorce in Romania was
almost inaccessible from 1967 to 1974 (Mureşan 2007). In the late 80s, some divorce laws were made more restrictive, such as in the case of Hungary-which temporarily halted the previous increase in divorce rates (Bukodi and Róbert 2003; Spéder and Kamarás 2008)—and Bulgaria, where fault-based divorce was introduced again (Todorova 2000). The transition from communism was accompanied by another wave of changes in divorce laws. In Romania, liberalized legislation had little observable effect, as the housing crisis, poverty and more negative attitudes towards divorce compared to other European countries kept divorce rates low (Mureşan et al. 2008; Pantea 2013). The Baltic States tried to abandon Soviet family laws in the 1990s by reverting to pre-Soviet legislation. As many former Eastern European countries strove for inclusion into the EU, legislation was aligned with liberal European law concepts that prevented the change of laws from becoming very restrictive (Khazova 2012).

Overall, divorce rates varied between the seven countries both before and during the transition (Fig. 4.2; Philipov and Dorbritz 2003). They were the highest in the Baltic states and Russia-generally on par with Northern Europe-and the lowest in Bulgaria, Romania and Poland. Figure 4.2 shows trends in the total divorce rate (that is, divorces per 100 marriages) in six of our countries (Russia is excluded). For the most part, total divorce rates remained stable throughout the 1980s, but began to increase in many countries after around the collapse of communism. This is most obvious in the Baltic States, but also in Hungary, which were the countries with high divorce rates to begin with. One can detect signs of upward slopes in divorce also in Bulgaria and Romania, and somewhat less clearly in Poland.

Despite these overlaps between divorce trends and the transition from communism, Philipov and Dorbritz (2003) argued that the transition from communism did not lead to any apparent effects on aggregate divorce rates. Rather, they remained low in countries where they were low to begin with, and any increases were mainly


Fig. 4.2 Total divorce rates in six post-communist countries. (Eurostat 2018)
due to timing effects—assessed through the duration of divorced marriages. Neither was there any evidence of a decrease in divorce during the transition. These conclusions are, however, based primarily on aggregated data. They may therefore be sensitive to any confounding effects due to compositional changes, as well as imperfect measurement of timing effects.

### 4.4 Theoretical Links Between the Transition Context and Divorce

Theoretically, the transition from communism to market-based economies could either increase or decrease divorce risk. Building on sociological and economic theories of divorce (e.g., Becker 1981; Levinger 1976), major social and economic upheavals can increase divorce risk by increasing marital stress or through a shakeup of norms regulating family life, or alternatively decrease divorce risk by exacerbating the costs of divorce and the reliance on family bonds.

The economic crisis followed by gradual demise and subsequent fall of the communist system was the most obvious mechanism to affect divorce. Economic recessions can have either a positive or a negative effect on divorce (Cohen 2014; Philipov and Dorbritz 2003; Sobotka et al. 2011). According to family stress theory (Conger et al. 1990) unemployment and the fall in living standards increase economic stress and negative spousal interactions, thus heightening the risk of divorce during recessions (cf. Fischer and Liefbroer 2006; Sobotka et al. 2011; South 1985). Related to this argument, a decrease in consumer confidence for instance has been shown to increase union dissolution rates in the Netherlands for women from all educational levels (Fischer and Liefbroer 2006). This argument would lead us to expect that due to the economic turmoil surrounding the transition from communism, divorce rates increased during the transition and particularly so in countries in which the economic declines were more pronounced.

Economic crises can also decrease divorce risks by increasing the costs of separation. Recessions reduce the opportunities for independent economic provision and increase economic reliance on the family. The reduction in incomes can also boost the costs of any legal divorce proceedings. Much research from Western countries has found that divorce rates are pro-cyclical (Amato and Beattie 2011; Cohen 2014; Hellerstein and Morrill 2009; Schaller 2013; South 1985), suggesting that recession effects that operate through the costs of divorce trump effects operating through stress mechanisms as couples forego or at least delay divorce during economic downturns. A study by González-Val and Marcén (2017) confirmed a pro-cyclical response of divorce rates for European countries (1991-2012). However, studies with individual data lead to opposing conclusions: unemployment (Kraft 2001) and unexpected earnings decreases (Böheim and Ermisch 2001; Weiss and Willis 1997) have been shown to raise divorce risks (Böheim and Ermisch 2001; Kraft 2001; Weiss and Willis 1997). Nevertheless, there is a gender divide. While unexpected
increases in earnings decrease divorce risks for men, they increase divorce risks for women (Böheim and Ermisch 2001; Weiss and Willis 1997).

The evidence for effects of economic crises on divorce comes mainly from Western countries. Although the general mechanisms linking economic turmoil to divorce were likely to be similar in the countries experiencing the transition from communism to market economy, the sheer depth of the crisis in the latter suggests that generalizations should be made with caution. In addition to spikes in unemployment and collapses in wage levels, inflation skyrocketed in many countries to four figures. Due to these specificities, predictions of the effects of the economic turmoil on divorce that are based on the Western experience are uncertain.

In addition to its economic effects, the transition from communism to marketbased economies had profound social consequences that may have shaped divorce rates. Despite the important role of social housing in communist ideology aiming at providing housing for everyone, communist countries suffered from a severe shortage of housing. Married couples and families were favored in the socialist housing system, which incentivized early union formation and childbearing (Deacon 1987; Frejka 2008; Hussar 2017; Morton 1979; Turnock 1990). The removal of this system can have removed some of the barriers to divorce as the supply of housing increased after the marketization of the housing sector. Nevertheless, these privatization processes, which in some countries started before the 90 s , simultaneously increased prices in both the private and public housing sector (Hegedüs and Tosics 1992; Tsenkova et al. 1996). Even though all post-communist countries started to privatize their housing market, there was much variation in the extent and the effectiveness of these steps (Clapham and Kintrea 1996). In Russia, for instance, many characteristics from the Soviet housing system such as the underdeveloped quality of housing or the waiting lists remained (Lux and Sunega 2014). In Romania, housing scarcity also remained a problem after the collapse of communism (Robila 2004). In Hungary, the housing system had been privatized early on (Bodnar and Böröcz 1998), but rather than improving the situation for a wide range of people, the privatization introduced new forms of segregation by favoring wealthy households and trapping low-income households in the social renting sector (Hegedüs 2013).

A second factor concerns the gendered effects of the transition. Socialist economies promoted gender equality in the public sphere through centralized wage setting, universal employment and accessible and affordable childcare; one of the consequences of the transition was an increase in the share of women unemployed, the gender wage gap, difficulties managing work and care, and in gender discrimination in many countries (Degtiar 2000; Khotkina 2001; LaFont 2001; Spéder and Kamarás 2008). Although male non-employment has a generally positive effect on divorce rates, female non-employment can stabilize marriages particularly in more traditional countries and where women are more economically dependent on their husbands (Cooke et al. 2013; Härkönen 2014; Lyngstad and Jalovaara 2010), which may have shaped the consequences of the transition from communism on divorce. In Lithuania, female unemployment stabilized marriage only in urban areas, (Maslauskaite et al. 2015) whereas in rural areas, dropping out of the labor market increased the risk of divorce for women (Maslauskaite et al. 2015). For men,
unemployment in Lithuania is associated with a higher divorce risk. No difference in divorce rates was found in Russia between women who worked and women who did not work in periods during socialism and after the transition (Muszyńska 2008). Vignoli et al. (2018) found no effect of women's employment on divorce in Hungary, but employed women have higher risks of divorce than unemployed women in Poland. An earlier study of the 1940-1992 marriage cohorts in Hungary showed an increased risk of divorce for employed women (Bukodi and Róbert 2003).

The transition also influenced values and attitudes. Historically, the countries differed in their religious affiliation. Russia, Bulgaria, Romania were Orthodox (Fitzpatrick and Kostina-Ritchey 2013; Kte'pi 2013; Pantea 2013), whereas Lithuania, Poland, Hungary were Catholic (Dvorak 2013; Lobodzinska 1983; Palmer and Molenda-Kostanski 2013) and Estonia was predominantly Protestant. The collapse of communist regimes increased insecurity as former guarantees such as employment or free education were not assured, which may have led to a more open embrace of-often previously latent or hidden-Catholic or Orthodox Christianity (Müller 2009; Robila 2004; Spéder and Kamarás 2008). Only in Hungary and Poland is a religious revival not clear and this is the case in Poland primarily because of such high Catholicism already at the dawn of transition from communism. Increased or activated religiosity may also have fueled the retraditionalization or re-familization that occurred in gender roles (Teplova 2007), which may have increased women's perceived and actual dependency on male partners.

At the same time, the waning of socialist values entailed greater personal freedom of thought, expression and lifestyles in most contexts. The changes that occurred in fertility and family behavior around the time of the transition from communism have been recognized as being related to the Second Demographic Transition (Lesthaeghe and Surkyn 2002). This transition is identified through a set of demographic patterns such as increased non-marital cohabitation and postponement of parenthood and presumably is caused by a shift toward post-materialist and individualist values. The opening of borders entailed an influx of ideas and information related to contraception and sexuality, which altered norms related to extramarital sex and pornography (Sobotka 2011). Although the direct link between these changing norms and family behavior has not been explicitly studied, it is plausible that the timing of marriage and potentially selection into marriage changed when non-marital sexual activity and contraception became more accessible. Fewer or later marital unions may in turn lower divorce rates. Stigma associated with divorce also diminished over time in some countries (Karabchuk 2017; PerelliHarris et al. 2017).

The transition also amplified pre-existing social problems, the best documented of which is high alcohol consumption in Russia (Mckee et al. 2001). Evidence shows that a high frequency of drinking is associated with an increased risk of divorce in Russia (Keenan et al. 2013). It is not clear, however, whether alcohol consumption increased detrimentally in other post-communist countries.

Finally, the transition may have contributed to divorce rates indirectly by altering the socio-demographic composition of married couples. The transition was
accompanied by an increase in the age at marriage (Frejka 2008), which is consistently shown to lower divorce risks (Lyngstad and Jalovaara 2010). On the other hand, non-marital cohabitation became much more common (Gerber and Berman 2010; Hoem et al. 2009; Katus et al. 2007; Philipov and Jasilioniene 2008; Spéder and Kamarás 2008), including both before marriage and re-partnering after divorce. The increase in cohabitation reflects a weakening importance of the institution of marriage, and marriages preceded by cohabitation-either with the same or different partner-are less stable than "direct" marriages. The transition was also accompanied by a clear reduction in fertility (Billingsley 2010; Billingsley and Duntava 2017; Frejka 2008). In Central and Eastern Europe, this was due to a postponement of parenthood primarily, whereas the decline in fertility was more related to fewer second and third births in Estonia, Lithuania and Russia (Billingsley and Duntava 2017). Children, and young children in particular, generally lower divorce risk (Lyngstad and Jalovaara 2010). This would imply that couples postponing parenthood and couples having fewer children overall, would have indirectly increased divorce risks.

Summing up, even though all of the seven countries studied here went through the transition from communism to market-based and democratic societies, the specific features of this transition showed cross-national variation. Theoretically, it is unclear whether the transition should have increased or decreased divorce, and given the national idiosyncracies both in the conditions before the transition and the adaptation to it, it is also unclear whether any trends in divorce can be expected to follow a uniform pattern applying to all seven countries.

### 4.5 Analysis

We use harmonized retrospective life course data from the Changing Life Course Regimes in Eastern Europe (CLiCR) dataset. This is a resource developed by the Stockholm Centre on Health of Societies in Transition at Södertörn University and Stockholm University's Demography Unit. CLiCR combines retrospective data from different sources and the country data sets used in this study come from the Generations and Gender Surveys (GGS) and Fertility and Families Surveys (FFS).

Our sample includes the first marriages of men and women who married between 1966 and 2004, and includes 51,568 individuals, with sample sizes ranging from 3745 in Estonia to 16,268 in Poland. Our dependent variable is divorce, which was defined at the month in which the couple either separated or legally divorced, whichever came first. The marriages were right-censored at death of the partner, at interview, or 15 years ( 180 months) since the wedding. The sample also included left-truncated cases-that is, marriages that were contracted before we first started observing them in 1981-for which we set the duration of the marriage to start from the marriage and not the first time they were observed (Guo 1993).

Our primary independent variable is historical period, which was divided into the following years: 1981-1984 (reference), 1985-1988, 1989-1991, 1992-1995,

1996-2000, and 2001-2004. The reference category reflects the years prior to the perestroika period (1985-1988). These periods reflect a similar starting point for all countries, but they are characterized somewhat differently in later years according to whether a country was part of CEE (Bulgaria, Hungary, Poland and Romania), or part of the FSU (Estonia, Lithuania and Russia). The years 1989-1991 cover the collapse of communism for all countries as well as the recession that immediately followed in the CEE countries. The immediate aftermath for FSU, which included a much deeper economic crisis, is instead reflected in the 1992-1995 period, which is a period of economic and institutional stabilization in CEE (except perhaps for Bulgaria). The subsequent years of the transition (1996-2000) included years of economic recovery for most of CEE but continued economic crisis in Russia. The final period we include in our analysis (2001-2004) are years during which economic recovery occurred for all as well as the period when Estonia, Hungary, Lithuania and Poland joined the European Union. Although the measure does not take into account more specific national variation, it characterizes the main stages that led to the collapse of communism and the transition to the market economy.

In the first stage of the analysis, we estimated Kaplan-Meier hazard curves to describe the development of divorce risks in each of the seven countries. In this descriptive stage, we estimate divorce risks using a period approach, which relies on synthetic cohorts. Respondents contribute to each time periods' hazard estimation as she/he progressed through the periods. This means that individuals can contribute to many different time periods, but their contribution will be specific to the number of months since marriage. The synthetic cohort approach is useful when aiming to show a trend over time periods and avoids introducing selectivity based on postponement of marriage. These hazard curves describe change over time, but because this may be due to compositional change we follow up these analyses with multivariate analysis.

In the second stage of the analysis, we estimated piecewise constant exponential event history models for each country (Blossfeld et al. 2007). Our first model compares divorce risks by historical period, only controlling for marital duration and sex of the respondent. Period effects on divorce risk can be confounded by the effects of marital duration. The divorce risk generally increases during the (approximately $4-7$ ) first years of marriage, and decreases thereafter. We split the data into 2-year (24 months) intervals by marital duration, and control for marital duration by including dummy variables of the split duration episodes, using the first 2 years as the reference category. The duration of marriage is calculated from the start of the marriage also for those left-truncated cases who had already married before 1981, that is, before the first observation period of 1981-1984. Sex of the respondent was controlled for to adjust for any possible sex differences in reports of marital histories.

Our second event history model controlled for additional covariates known to predict divorce. These models were estimated in order to assess whether compositional change of the marriages could drive any of the differences in divorce risks by historical period. As discussed above, the transition from communism to marketbased economies had a range of societal consequences, which in addition to any
secular trends may have influenced the divorce rates of couples marrying in different stages during the communist era or thereafter.

First, we control for educational attainment, which due to educational expansion increased in many countries, and is a known predictor of divorce in post-communist societies and beyond (Becker and Hemley 1998; Bukodi and Róbert 2003; Härkönen and Dronkers 2006; Karabchuk 2017; Rootalu 2010). This information was based on the highest level of education completed as well as the time of its completion, and is coded into a time-varying measure of educational attainment with three categories: Low, middle and high. Low educational attainment includes less than or completed secondary school, middle includes attending a higher educational institution for less than 3 years (including post-secondary or technical training), and high educational attainment includes at least 3 years of post-secondary education (i.e., university). Because we know the completion date of the highest attained education only, we cannot reconstruct full educational histories of attainment dates of earlier degrees. This would be a problem for those marrying before completing secondary education but who continue to tertiary education. Given that most people marry after completing their education-and secondary education (at age 18-19) in par-ticular-this will not lead to any major bias due to time-ordering of the variables (cf. Hoem 1996; also Härkönen and Dronkers 2006). Our data include information of the educational attainment of the (male or female) respondent only. Because men's and women's education can shape divorce risks differently, we also interact educational attainment with sex.

We also control for age at marriage (of the respondent), whether the respondent cohabited before the marriage and whether the respondent or the partner had any children before the start of their union. In addition, we added time-varying variables for the number of children of the respondent $(0,1,2$, or 3 or more $)$, as well as the presence of a small child ( $<3$ years old). Controlling for these takes into account any changes in divorce rates that may have occurred because of changing patterns of family formation. Marrying at a young age as well as cohabiting before marriage are associated with higher divorce risk (Härkönen and Dronkers 2006; Muszyńska 2008; Muszyńska and Kulu 2007). Having a small child, on the other hand, predicts lower divorce risks (Jasilioniene 2007; Karabchuk 2017; Muszyńska and Kulu 2007). During the communist era, some divorce procedures were more difficult when underage children were present in the family, another reason to control for the age of a child (Moskoff 1983; Goode 1993; Fitzpatrick and Kostina-Ritchey 2013).

Descriptive statistics of these variables in each country sample are displayed in Table 4.1. A few general patterns are noteworthy. First, 55-69\% of all individuals in all samples have medium educational level, whereas the remaining balance falls either on the low or high side; the countries that were previously part of the Soviet Union (Estonia, Lithuania and Russia) had a low share of individuals with only secondary or lower education (between $7-11 \%$ compared to $20-29 \%$ in non-Soviet countries) and tended to have higher shares of university educated individuals. No large differences appeared across these countries in terms of the low average age at first marriage (22-23 years old), number of children (1.3-1.5), whether a child under the age of three was in the household (35-37\%), or whether a partner had a
Table 4.1 Descriptive statistics in person-month

|  | Bulgaria |  | Estonia |  | Hungary |  | Lithuania |  | Poland |  | Romania |  | Russia |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Observations | 66,482 | 14.50\% | 33,305 | 7.26\% | 58,067 | 12.67\% | 47,974 | 10.46\% | 134,225 | 29.28\% | 65,727 | 14.34\% | 52,692 | 11.49\% | 458,472 | 100.00\% |
| Time period |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1981-1984 | 9714 | 14.61\% | 7064 | 21.21\% | 12,082 | 20.81\% | 7911 | 16.49\% | 33,026 | 24.60\% | 11,832 | 18.00\% | 9724 | 18.45\% | 91,353 | 19.93\% |
| 1985-1988 | 11,046 | 16.62\% | 6946 | 20.86\% | 11,194 | 19.28\% | 8416 | 17.54\% | 31,883 | 23.75\% | 11,635 | 17.70\% | 10,170 | 19.30\% | 91,290 | 19.91\% |
| 1989-1991 | 9929 | 14.93\% | 5309 | 15.94\% | 8432 | 14.52\% | 7306 | 15.23\% | 23,809 | 17.74\% | 9526 | 14.49\% | 8188 | 15.54\% | 72,499 | 15.81\% |
| 1992-1995 | 12,528 | 18.84\% | 5667 | 17.02\% | 9455 | 16.28\% | 8759 | 18.26\% | 15,600 | 11.62\% | 11,381 | 17.32\% | 9308 | 17.66\% | 72,698 | 15.86\% |
| 1996-2000 | 13,643 | 20.52\% | 5009 | 15.04\% | 9758 | 16.80\% | 9022 | 18.81\% | 16,902 | 12.59\% | 12,332 | 18.76\% | 9225 | 17.51\% | 75,891 | 16.55\% |
| 2001-2004 | 9622 | 14.47\% | 3310 | 9.94\% | 7146 | 12.31\% | 6560 | 13.67\% | 13,005 | 9.69\% | 9021 | 13.72\% | 6077 | 11.53\% | 54,741 | 11.94\% |
| Female | 39,534 | 59.47\% | 21,090 | 63.32\% | 32,489 | 55.95\% | 23,628 | 49.25\% | 77,492 | 57.73\% | 32,162 | 48.93\% | 32,086 | 60.89\% | 258,481 | 56.38\% |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Low | 13,586 | 20.44\% | 3817 | 11.46\% | 11,947 | 20.57\% | 5454 | 11.37\% | 34,860 | 25.97\% | 18,971 | 28.86\% | 3631 | 6.89\% | 92,266 | 20.12\% |
| Medium | 40,903 | 61.52\% | 19,308 | 57.97\% | 36,809 | 63.39\% | 32,951 | 68.69\% | 84,399 | 62.88\% | 40,659 | 61.86\% | 29,142 | 55.31\% | 284,171 | 61.98\% |
| High | 11,993 | 18.04\% | 10,180 | 30.57\% | 9311 | 16.03\% | 9569 | 19.95\% | 14,966 | 11.15\% | 6097 | 9.28\% | 19,919 | 37.80\% | 82,035 | 17.89\% |
| Age at marriage [Mean, $S D$ ] | $\begin{aligned} & 22.06 \\ & 4.32 \end{aligned}$ |  | $\begin{aligned} & 23.15 \\ & 4.50 \end{aligned}$ |  | $\begin{array}{\|l\|} \hline 22.51 \\ 4.18 \\ \hline \end{array}$ |  | $\begin{array}{\|l\|} \hline 23.60 \\ 4.69 \end{array}$ |  | $\begin{aligned} & 23.19 \\ & 4.14 \end{aligned}$ |  | $\begin{aligned} & 23.13 \\ & 4.65 \end{aligned}$ |  | $\begin{aligned} & 22.51 \\ & 4.66 \end{aligned}$ |  | $\begin{array}{\|l\|} \hline 22.90 \\ 4.42 \end{array}$ |  |
| Cohabited | 39,828 | 59.91\% | 17,053 | 51.20\% | 8221 | 14.16\% | 7472 | 15.58\% | 12,774 | 9.52\% | 11,145 | 16.96\% | 14,113 | 26.78\% | 110,606 | 24.12\% |
| Stepfamily | 1828 | 2.75\% | 2595 | 7.79\% | 1898 | 3.27\% | 2635 | 5.49\% | 6682 | 4.98\% | 2787 | 4.24\% | 4736 | 8.99\% | 23,161 | 5.05\% |
| Child <3 | 23,864 | 35.90\% | 12,292 | 36.91\% | 21,528 | 37.07\% | 17,458 | 36.39\% | 47,762 | 35.58\% | 22,710 | 34.55\% | 18,277 | 34.69\% | 163,891 | 35.75\% |
| N children [Mean, $S D$ ] | 1.350 .78 |  | $\begin{aligned} & 1.50 \\ & 0.90 \\ & \hline \end{aligned}$ |  | $\begin{array}{\|l\|} \hline 1.41 \\ 0.87 \\ \hline \end{array}$ |  | $\begin{array}{\|l\|} \hline 1.28 \\ 0.83 \\ \hline \end{array}$ |  | 1.380 .99 |  | $\begin{aligned} & \hline 1.31 \\ & 0.90 \\ & \hline \end{aligned}$ |  | $\begin{array}{\|l\|} \hline 1.26 \\ 0.79 \\ \hline \end{array}$ |  | 1.350 .89 |  |

child from a previous partnership (3-9\%). Cohabitation before marriage did vary widely, however, with this being much more common in Bulgaria and Estonia. The differences in pre-marital cohabitation reflect variation in family formation processes (Heuveline and Timberlake 2004): In Bulgaria, for example, the high prevalence of premarital cohabitation is due to short-term cohabitation prior to the wedding (and with the same partner) (Philipov and Jasilioniene 2008).

### 4.6 Results

### 4.6.1 The Risk of Divorce Over Marital Duration and Stages of the Long Transition

Figures 4.3a-g describe the risks of divorce (hazard rates) across different time periods by duration of the marriage in the seven countries. For the most part, we identify the common duration-specific pattern of divorce in which divorce rates increase during the first years of marriage, and decrease and stabilize thereafter. One can also detect clear cross-national variation in divorce rates as well as in their levels across time periods. Divorce rates were the lowest in Bulgaria and Romania, whereas they were the highest in Estonia and Russia. Except for Bulgaria and Romania, where divorce rates remained stable throughout the observation period, changes in divorce rates can be observed for the other CEE and FSU countries. In the period of perestroika, divorce rates decreased in Russia and Estonia, while they increased in Lithuania and Hungary. From the time period 1989-1991 onward, Estonia, Hungary and Lithuania deviate from general divorce rate patterns. In these countries, divorce rates remained rather stable or increased with marriage duration. Similar trends can be observed for Poland from 1992 onward. In Estonia, Hungary and Poland, the time period 1992-1995 indicates an increase in divorce rates, whereas in Lithuania and Russia, divorce rates started to increase constantly from 1996. Compared to Estonia, where divorce rates seemed to recover from 2001 on, Russia, Hungary, Lithuania and Poland did not face a decrease in divorce rates.

Overall, the descriptive findings reveal rather considerable cross-national variation both in the level of divorce as well as its temporal pattern during the transition from communism to market-based economies. They suggest that the transition from communism could have affected divorce, although the effects seem to have been country-specific. However, these descriptive findings do not tell us whether differences persist once adjusting for compositional factors. Any differences in divorce rates over the transition can reflect changing composition of marriages, such as the educational distributions of married couples, or changing family formation behaviors in terms of postponement of family formation, increasing cohabitation, or changes in fertility. Each of these factors also predicts divorce, which means they may independently account for changes in divorce rates.


Fig. 4.3 (a-g) Monthly divorce rates by synthetic marriage cohort in Bulgaria, Estonia, Hungary, Lithuania, Poland, Romania, and Russia

### 4.6.2 Event History Regression of Divorce Over the Long Transition

The Kaplan-Meier estimates shown above presented descriptive findings of duration-specific divorce rates in the seven countries. However, because these findings did not adjust for compositional factors, any period differences (or lack thereof) in divorce rates can reflect changing composition of marriages, such as the educational distributions of married couples, or changing family formation behaviors in terms of postponement of family formation, increasing cohabitation, or changes in fertility. Each of these factors also predict divorce, which means they may independently account for changes in divorce rates.

Table 4.2 presents results from two event history models on the risk of divorce, each estimated separately for the seven countries. The first model shows estimates of differences in divorce risk by historical period, when only controlling for gender of the respondent and duration of the marriage, whereas the second model controls for education, its interaction with gender, age at marriage, whether the respondent had cohabited before marrying, number of children, and whether the marriage involved children born before the union started. The second model was estimated in order to assess whether any changes in divorce risk over periods-and especially, marriages that began around the transition from communism-remained after changes in family formation behaviour were taken into account.

Two general findings are clear. First, the results confirm the descriptive results of a lack of any uniform pattern in divorce risks over the transition from communism to market-based economies. Second, with a few exceptions, changes in family formation behavior and the composition of marriages do not explain the differences in divorce risks over time. Little difference in the period estimates appeared between Model 1 and 2, where results are adjusted for educational attainment, fertility behavior, cohabitation history, and presence of stepchildren in the latter. Increased divorce risk in certain periods of the transition from communism were somewhat attenuated in the full model in Hungary, Poland and Russia. Heightened divorce risk during the collapse of communism in Bulgaria (1989-1998), in contrast, was not revealed until adjusting for compositional differences.

Period-specific differences are observed in Model 2 after adjusting for compositional changes over time. In each country, divorce rates had increased at some point during the observation period from the reference period of 1981-1984. However, the countries differ clearly in when the increase first took place, and whether it was sustained or temporary. The period of perestroika is when changes related to the transition from communism began, and we note an increase in divorce risks only in two countries: Hungary and Romania. In Hungary, this early shift in divorce rates held stable throughout the period we studied (until 2004). Romania, in contrast, saw further increases in divorce rates-with a peak in 1989-1991—but then a return to earlier rates by the 2001-2004 period.

Bulgaria, Lithuania, and Estonia experienced the first increase in divorce rates during the years in which the actual collapse of communism occurred (1989-1991).
Table 4.2 Divorce risks in seven post-communist countries. Hazard ratios and confidence intervals from piecewise constant exponential event history models

|  | Bulgaria |  | Estonia |  | Hungary |  | Lithuania |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Period |  |  |  |  |  |  |  |  |
| 1981-1984 | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| 1985-1988 | 0.965 | 0.995 | 0.930 | 0.967 | 1.374** | 1.352** | 1.162 | 1.197 |
|  | [0.680-1.370] | [0.701-1.412] | [0.732-1.181] | [0.761-1.230] | [1.097-1.723] | [1.078-1.695] | [0.849-1.591] | [0.874-1.640] |
| 1989-1991 | 1.285 | 1.383* | 1.193 | $1.275^{\dagger}$ | 1.234 | 1.225 | 1.454* | 1.529** |
|  | [0.914-1.807] | [0.983-1.946] | [0.935-1.524] | [0.997-1.630] | [0.955-1.594] | [0.947-1.584] | [1.063-1.989] | [1.116-2.095] |
| 1992-1995 | 1.151 | 1.225 | 1.299* | 1.306* | $1.330^{*}$ | 1.305* | 1.161 | 1.217 |
|  | [0.832-1.592] | [0.884-1.696] | [1.031-1.636] | [1.035-1.650] | [1.048-1.688] | [1.026-1.660] | [0.853-1.581] | [0.892-1.660] |
| 1996-2000 | 1.186 | 1.228 | 1.380** | 1.301* | 1.403** | 1.298* | 1.596** | 1.640** |
|  | [0.866-1.625] | [0.895-1.686] | [1.095-1.739] | [1.028-1.647] | [1.115-1.764] | [1.027-1.641] | [1.199-2.124] | [1.228-2.190] |
| 2001-2004 | 1.122 | 1.175 | 1.169 | 1.112 | 1.579** | 1.395** | 1.754** | 1.763** |
|  | [0.793-1.589] | [0.827-1.669] | [0.884-1.545] | [0.837-1.478] | [1.238-2.015] | [1.083-1.796] | [1.297-2.372] | [1.298-2.395] |
| Female | 1.220* | 1.198 | 1.168* | 1.085 | 1.128* | 1.101 | 2.064** | $1.592^{\dagger}$ |
|  | [1.011-1.471] | [0.776-1.850] | [1.005-1.358] | [0.746-1.579] | [0.982-1.296] | [0.780-1.554] | [1.741-2.447] | [0.992-2.554] |
| Education |  |  |  |  |  |  |  |  |
| Low |  | Ref. |  | Ref. |  | Ref. |  | Ref. |
| Medium |  | 0.984 |  | $0.756^{\dagger}$ |  | 1.183 |  | $0.723^{\dagger}$ |
|  |  | [0.673-1.438] |  | [0.550-1.040] |  | [0.865-1.617] |  | [0.496-1.055] |
| High |  | 0.663 |  | 0.622* |  | 1.148 |  | 0.535* |
|  |  | [0.377-1.166] |  | [0.410-0.942] |  | [0.755-1.746] |  | [0.324-0.884] |
| Med.* female |  | 0.947 |  | 0.997 |  | 0.875 |  | 1.194 |
|  |  | [0.585-1.532] |  | [0.656-1.516] |  | [0.600-1.278] |  | [0.715-1.993] |
| High* female |  | 1.082 |  | 1.022 |  | 0.893 |  | 1.693 |
|  |  | [0.551-2.127] |  | [0.613-1.703] |  | [0.538-1.485] |  | [0.897-3.193] |


| Age at marriage |  | 0.970* |  | 0.916** |  | 0.942** |  | $0.966^{* *}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | [0.946-0.994] |  | [0.898-0.935] |  | [0.924-0.961] |  | [0.948-0.984] |
| Cohabited before |  | $0.705^{*}$ |  | 1.046 |  | 1.933** |  | 1.135 |
|  |  | [0.588-0.845] |  | [0.899-1.218] |  | [1.632-2.289] |  | [0.917-1.405] |
| Stepfamily |  | 1.112 |  | 1.832** |  | 1.267 |  | $1.303^{\dagger}$ |
|  |  | [0.691-1.789] |  | [1.448-2.316] |  | [0.908-1.767] |  | [0.957-1.775] |
| Child $<3$ |  | 0.694** |  | 0.667** |  | 0.675** |  | 0.781* |
|  |  | [0.530-0.910] |  | [0.542-0.820] |  | [0.554-0.824] |  | [0.619-0.986] |
| N children |  | 0.585** |  | $0.624^{* *}$ |  | 0.598** |  | $0.737^{* *}$ |
|  |  | [0.498-0.687] |  | [0.555-0.702] |  | [0.535-0.669] |  | [0.645-0.842] |
| Marital duration | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Constant | 0.000448** | 0.00158** | 0.00156** | 0.0210** | $0.000889 * *$ | $0.00360^{* *}$ | $0.000324^{* *}$ | $0.00116^{* *}$ |
|  | $\begin{array}{\|l\|} \hline[0.000314- \\ 0.000639] \\ \hline \end{array}$ | $\begin{array}{\|l} \hline[0.000758- \\ 0.00329] \\ \hline \end{array}$ | $\begin{aligned} & {[0.00120-} \\ & 0.00203] \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline[0.0116- \\ 0.0377] \\ \hline \end{array}$ | $\begin{aligned} & {[0.000687-} \\ & 0.00115] \end{aligned}$ | $\begin{aligned} & {[0.00200-} \\ & 0.00646] \end{aligned}$ | $\begin{aligned} & \hline[0.000225- \\ & 0.000466] \\ & \hline \end{aligned}$ | $\begin{aligned} & {[0.000592-} \\ & 0.00226] \\ & \hline \end{aligned}$ |
| Observations | 66,482 | 66,482 | 33,305 | 33,305 | 58,067 | 58,067 | 47,974 | 47,974 |
| Log-likelihood | -2025.7231 | -1968.6438 | -2331.1949 | -2212.1904 | -2908.4515 | -2783.2938 | -2070.1476 | -2039.3693 |
| Chi-sq. (df) | 29.97 (13) | 144.13 (22) | 77.35 (13) | 315.36 (22) | 87.66 (13) | 337.97 (22) | 125.52 (13) | 187.08 (22) |

Table 4.2 (continued)

|  | Poland |  | Romania |  | Russia |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model 1 | Model 2 | Model 1 | Model 2 | Model 1 | Model 2 |
| Period |  |  |  |  |  |  |
| 1981-1984 | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| 1985-1988 | 0.898 | 0.892 | 1.457* | 1.444* | 1.005 | 1.034 |
|  | [0.695-1.160] | [0.691-1.153] | [1.034-2.052] | [1.024-2.034] | [0.820-1.232] | [0.843-1.267] |
| 1989-1991 | 0.896 | 0.876 | 1.729** | 1.740** | 0.956 | 0.991 |
|  | [0.674-1.190] | [0.659-1.164] | [1.218-2.456] | [1.224-2.473] | [0.766-1.194] | [0.793-1.239] |
| 1992-1995 | 2.125** | 1.981** | 1.414* | 1.385 ${ }^{+}$ | 1.196 ${ }^{+}$ | 1.153 |
|  | [1.657-2.725] | [1.539-2.551] | [1.002-1.996] | [0.980-1.957] | [0.981-1.457] | [0.946-1.406] |
| 1996-2000 | 2.085** | 1.878** | 1.515* | 1.434* | 1.583** | 1.408** |
|  | [1.638-2.654] | [1.468-2.404] | [1.090-2.105] | [1.029-1.998] | [1.315-1.906] | [1.168-1.697] |
| 2001-2004 | 3.397** | 2.843** | 1.044 | 0.965 | 1.468** | 1.248* |
|  | [2.697-4.278] | [2.240-3.608] | [0.706-1.543] | [0.651-1.432] | [1.188-1.814] | [1.008-1.546] |
| Female | 1.373** | 1.328 | 1.139 | 0.654* | 1.241** | 0.804 |
|  | [1.181-1.595] | [0.903-1.953] | [0.942-1.377] | [0.433-0.988] | [1.100-1.400] | [0.511-1.265] |
| Education |  |  |  |  |  |  |
| Low |  | Ref. |  | Ref. |  | Ref. |
| Medium |  | $1.650^{* *}$ |  | 0.939 |  | 0.885 |
|  |  | [1.180-2.307] |  | [0.669-1.319] |  | [0.616-1.272] |
| High |  | 1.968** |  | 1.058 |  | 0.801 |
|  |  | [1.285-3.014] |  | [0.632-1.773] |  | [0.541-1.184] |
| Med.* female |  | 0.927 |  | 1.878** |  | 1.412 |


|  |  | [0.609-1.412] |  | [1.180-2.990] |  | [0.876-2.276] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| High* female |  | 1.046 |  | 2.129* |  | 1.489 |
|  |  | [0.610-1.795] |  | [1.055-4.296] |  | [0.901-2.461] |
| Age at marriage |  | 0.946** |  | 0.968** |  | 0.933** |
|  |  | [0.929-0.964] |  | [0.947-0.990] |  | [0.918-0.948] |
| Cohabited before |  | 2.271** |  | 1.463** |  | 1.682** |
|  |  | [1.903-2.709] |  | [1.158-1.848] |  | [1.486-1.905] |
| Stepfamily |  | 3.895** |  | 2.610** |  | $1.203{ }^{\dagger}$ |
|  |  | [3.182-4.768] |  | [1.891-3.603] |  | [0.990-1.461] |
| Child $<3$ |  | 0.881 |  | 0.666** |  | 0.998 |
|  |  | [0.720-1.078] |  | [0.499-0.890] |  | [0.841-1.184] |
| N children |  | 0.803** |  | 0.746** |  | 0.510** |
|  |  | [0.722-0.893] |  | [0.643-0.866] |  | [0.455-0.571] |
| Marital duration | 0.000255* | $0.000559 * *$ | 0.000374** | $0.000913^{* *}$ | $0.00171^{* *}$ | 0.0104** |
| Constant | $\begin{aligned} & {[0.000194} \\ & 0.000336] \\ & \hline \end{aligned}$ | [0.000312-0.00100] | $\begin{aligned} & {[0.000257-} \\ & 0.000544] \\ & \hline \end{aligned}$ | [0.000445-0.00187] | [0.00139-0.00209] | $\begin{aligned} & {[0.00615-} \\ & 0.0177] \end{aligned}$ |
| Observations | 134,225 | 134,225 | 65,727 | 65,727 | 52,692 | 52,692 |
| Log-likelihood | -3194.0717 | -3051.9169 | -1844.8212 | -1793.8818 | -3746.5455 | -3594.0967 |
| Chi-sq. (df) | 229.25 (13) | 513.56 (22) | 25.49 (13) | 127.37 (22) | 151.48 (13) | 456.38 (22) |

This relatively small increase in divorce rates was short-lived in Bulgaria, where rates immediately fell again and held stable in our observation period. In Lithuania, after a temporary decrease in 1992-1995, we see rather a steady increase that continued for most of the following periods. Divorce rates increased for the first time during the 1989-1991 period also in Estonia, even though the difference from the reference period is statistically significant only at the $10 \%$ level. Estonian divorce rates remained elevated throughout the 1990s, but returned to the starting level after the turn of the millennium.

Poland and Russia are two countries in which divorce rates began to increase after the transition period of 1989-1991. Although from a low initial level (see Fig. 4.3f), Polish divorce rates increased sharply starting from the 1992-1995 period, and continued to increase until the end of the follow-up period in 2001-2004. In Russia, on the other hand, divorce rates remained stable through the 1980s and the transition years of the early 1990s, and increased only in the late 1990s to remain elevated also in the early 2000s.

In sum, our results show that divorce rates were sensitive to the societal change in all countries, at least temporarily, but with varying patterns. Increased divorce risks that accompanied the transition from communism appear to have been temporary or short-term reactions to societal change in Bulgaria, Estonia and Romania, whereas in Lithuania and Poland the transition and its aftermath seemed to have triggered a more lasting increasing trend. While Hungary was early in showing a change in divorce rates and Russia was late, a continued increasing trend was not evident in either case.

### 4.7 Conclusions

In this study, we analyzed trends in divorce risks in seven post-communist countries with a particular interest in whether divorce in these countries was affected by the long transition-ranging from the gradual demise of the communist economic system in the 1980s to the years of economic recovery and dawning accession to the European Union in Eastern Europe-from communism to market-based societies. The collapse of communism was one of the defining geopolitical events of latetwentieth century Europe with major implications for the lives of the citizens who went through the transition. This has been documented in a range of studies that have focused on health and mortality, alcohol use, and family formation and fertility. Yet research on developments in divorce rates over the transition has been markedly absent.

Our comparison covered seven post-communist countries-Bulgaria, Estonia, Hungary, Lithuania, Poland, Romania, and Russia-that despite all having gone through the transition, differed from one another in several ways. Some were part of the Soviet Union whereas others were not. They also varied in terms of religious heritage and religiosity, and the long-term economic and social success in transitioning to the new societal system.

Our explorative analysis of divorce trends during the long transition from communism sought to answer three questions. First, we asked how divorce risks developed over the long transition and second, whether any trends be accounted for by changes in the educational and demographic composition of marriages. We discussed how theoretically, the transition and the economic, social and legal changes that accompanied it could lead either to an increase or a decrease in divorce rates. Our results showed that in each of the seven countries, we could find signs of increased divorce risks at some stages of the transition. Although we cannot completely rule out the possibility that these findings reflect more secular trends in divorce, the timing patterns of the increase, or the start of the increase, strongly suggest that the transition played a role.

Furthermore, we found that adjusting for educational attainment and family demographic characteristics did not, for the most part, account for these increases. This finding contrasts the conclusion by Philipov and Dorbritz (2003) of no apparent effect of the transition on aggregated divorce rates. This suggests that our comparative analysis of divorce trends in post-communist countries with micro-level data-the first of its kind-revealed trends that remained uncovered in an aggregatelevel analysis.

As an answer to our third question, we found that despite signs of a transition effect in each countries, the exact pattern of divorce rates over the long transition varied markedly between the seven countries. The seven countries started from very different levels of divorce, and no clear pattern of divorce trends was found during the long transition. In three countries-Bulgaria, Lithuania, and Estonia-divorce rates increased during the period of their detachment from communist rule in 1989-1991; additionally, in Romania they peaked during this period. Yet in Bulgaria, this increase was only temporary (and from a low level), and divorce rates returned later to their initial levels also in Estonia and Romania. Lithuania differed from this pattern, and their divorce rates continued to increase-after a temporary dip in 1992-1995-until the last observation period of 2001-2004.

In other countries-Hungary and Romania-divorce rates had increased from the 1981-1984 level already in 1985-1988. Hungary tightened its divorce laws in the late 1980s, as a result of earlier increases in divorce (Bukodi and Róbert 2003; Spéder and Kamarás 2008), which may have contributed to the temporary decrease in divorce in 1989-1991. But otherwise, Hungarian divorce rates then remained stable until 2001-2004. Romanian divorce rates, which together with the Bulgarian ones were the lowest of the seven countries, peaked in 1989-1991 and decreased later, ending up in 2001-2004 at the same level as in 1981-1984. In Poland, divorce rates were low in the 1980s but increased rapidly from 1992-1995 onward, overlapping with economic revival in Poland. The overlap between post-transition economic crisis and growth in divorce was different in Russia. Even though the collapse of the Soviet Union led to well-documented economic and social problems, Russian divorce rates increased only in 1996-2000, overlapping with the late-1990s economic collapse.

To conclude, although the economic and social experiences during long transition from communism shared many similarities-the gradual decline of the
communist system in the 1980s, the economic crises of the immediate aftermath of the collapse of communism in 1989-1991 as well as economic uncertainties in the 1990s, and the economic recovery during the early years of the millennium - this was not matched by a uniform trend of divorce. Rather, we find clear differences in how and when the transition shaped marital stability, and likely reflected the different historical starting points and traditions, and the national idiosyncracies in the adaptations to market-based democracies. Although our exploratory analysis could not shed light on these idiosyncratic explanations, it did show that the effects of even major societal upheavals on divorce are contingent on societal context. Future research can shed more light on the contextual features that can shape the impacts of major societal ruptures on divorce.

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## Part II <br> Divorce Risks

# Chapter 5 <br> The Negative Female Educational Gradient of Union Dissolution: Towards an Explanation in Six European Countries 

Maike van Damme


#### Abstract

How can we explain that, nowadays, lower educated women are more likely to separate than higher educated women are? I formulate hypotheses to explain this based on Levinger's (J Marriage Family 27(1):19-28, 1965; J Soc Issues 32(1):21-47, 1976; Handbook of interpersonal commitment and relationship stability. Kluwer Academic/Plenum Publishers, New York, 1999) social exchange theory on 'attractions' and 'barriers' and assess whether there are mediating effects of affectional rewards, economic rewards, symbolic rewards, affectional barriers, material barriers, and symbolic costs. I analyse the Generations and Gender Survey (GGS) [2004-2013] for two waves for Bulgaria, Russia, Georgia, France, Austria, and Czech Republic. With this selection of countries, I have a good context variation according to social and economic costs of union dissolution. Using the khb-approach - which is a mediation analysis for binary dependent variables - I examine the probability that women broke up between two consecutive waves and explain the influence of education on union dissolution. Instead of being mainly explained by 'attractions', 'barriers' were more important explanatory variables of the negative educational gradient of union dissolution in the six countries I studied (lower educated women had less to lose symbolically and economically). Next to relationship satisfaction as the only explanatory 'attraction', I found suppressor effects of 'attractions'.


Keywords Confounding • Education • Khb-method • Mediation analysis • Union dissolution

### 5.1 Introduction

Already in 1962, William Goode (1962) mentioned that in (Western) traditional (divorce is less common) contexts, the upper strata would divorce the most, whereas in more advanced (divorce is more common) contexts, the lower strata would be most likely to break up. One societal stratifying indicator is education. Educational

[^7]inequalities exist in many aspects of life and family life events like divorce are no exception to this. Studying the mechanisms underlying the educational gradient of separation is of utmost scientific importance because a negative educational gradient might imply growing inequality for future generations in family behaviour. Individual-level explanations of educational differences in breaking-up have rarely been studied (but see Boertien and Härkönen 2018; Jalovaara 2001; Raymo et al. 2013). I try to unravel the different mediators explaining why higher educated women are less likely to break-up, i.e. what is referred to as the negative educational gradient. Research so far has demonstrated a change in the Nordic and Continental countries from a positive female educational 'gradient' - the higher educated are more likely to divorce than the lower educated - in earlier periods (from roughly the forties to the nineties) to a negative one in recent times (Matysiak et al. 2014).

Following social exchange theory of Levinger (1965, 1976), Boertien and Härkönen (2018) examined for the UK whether and to what extent the explanation lies in 'attractions' (measured by marital satisfaction) while controlling for 'barriers' (affectional, material, and symbolic costs, see below). This chapter differs in two important ways from the publication of Boertien and Härkönen and extends therefore prior recent research on this topic. First, Boertien and Härkönen examined only marital break-ups and could not investigate separations from cohabitations. In this chapter, I consider both break-ups from marital and cohabitational relationships. Second, Boertien and Härkönen found small educational differences in marital satisfaction; hence, this could explain the educational gradient of divorce in the UK only to a small extent. Yet, Van Damme and Dykstra (2018) found a robust positive educational effect (of the couple's level, not women's education only) on marital satisfaction for eight EU-countries. Could it be that marital satisfaction is a more important explanatory factor of educational differences in union dissolution in other countries than the UK? To find this out, I replicate the single country study of Boertien and Härkönen with studies in other (more) countries. My questions therefore are: To what extent are lower educated women more likely to break-up than higher educated women and how can I explain this? To what extent do 'attractions' and to what extent do 'barriers'have mediating roles, explaining this female educational gradient of union dissolution?

In answering these questions, I do not only replicate Boertien and Härkönen's study for other contexts than the UK (i.e. I look at West- and Eastern European contexts with a variation of social and economic costs of divorce). I also use explicitly more indicators of attraction than only marital satisfaction. With this, I widen the number of indicators of the concept of attractions, which makes the measurement of attractions more extensive and reliable.

I analyse the Generations and Gender Survey (GGS) [2004-2013] for two waves for the following six countries: Czech Republic, Austria, France, Georgia, Russia, and Bulgaria. Using logistic regression and the khb-approach (Karlson et al. 2012) for disentangling direct from indirect effects, I examine whether women have broken up their relationship since wave 1 and perform a mediation analysis to explain the female educational gradient of union dissolution. I only consider opposite sex relationships.

### 5.2 Theoretical Framework

I apply George Levinger's $(1965,1976,1999)$ social-psychological social exchange theory to explain why the higher educated experience a lower break-up rate than the lower educated. Levinger addresses the cohesiveness of pairs in the same way as group cohesiveness, by considering both 'attractions to stay in the relationship' and 'barriers to leave the relationship'. When both partners have continuing positive feelings toward the other and at the same time some constraining feelings, ties, and structures, the pair commitment is strong. 'Attractions' are the balance of costs (time, energy, and other expenditures that are required for continuing a relationship) and benefits of the marriage (receipt of love, status, information, money, and other resources). They consist of affectional, material, and symbolic rewards. 'Barriers' are constraints to dissolution, such as having marital specific capital and marital commitment, that only play a role once the spouses are dissatisfied with the relationship or start thinking about breaking-up. Among such constraints are affectional, material, and symbolic costs. Note that Levinger $(1965,1976)$ also includes 'alternative attractions', which he defines as attractions from alternative relationships (e.g. including family or work relationships). Levinger points out that theoretically, someone would leave her/his current relationship if and when the benefits from the alternative situation exceed the benefits of the current relationship, if there were a complete absence of barriers. ${ }^{1}$ However, following Boertien and Härkönen (2014), I state that these alternative attractions can be considered 'barriers' to break up since a lack of alternatives creates such barriers. For instance, women's own occupational status and employment (both conceptualized here as barriers to breakup) can be seen as alternative attractions to live alone rather than together in a nonsatisfactory relationship.

Levinger discusses a set of determinants that were proven relevant in the American society of the sixties and seventies. I update the then relevant attractions and barriers explaining the break-up risk that were suggested by Levinger by adding a couple perspective (e.g. having not only his occupational status or income (as indicators of rewards), but also hers' (as indicators of costs)). Note that the GGS has some information on couple characteristics but are not full couple data.

I now first discuss Levinger's attractions and barriers in detail (based on Levinger, $(1965,1976))$ and then I formulate hypotheses of the mediating/confounding effects of these rewards and costs in explaining educational differences in union dissolution. In formulating the hypotheses (expectations) of the mediating relationships, I use the following conceptual models (Figs. 5.1a and 5.1b), which will be elaborated upon in the following section, where I discuss each attraction and barrier separately. I expect that attractions in general are explaining the relationship between education and separation, whereas barriers are suppressing this relationship.

[^8]

Fig. 5.1a Expected mediating mechanisms of the relationship between education and separation; attractions as mediators


Fig. 5.1b Expected mediating mechanisms of the relationship between education and separation; barriers as mediators (suppressors)

### 5.2.1 Attractions to Stay Together

### 5.2.1.1 Affectional Rewards

Levinger distinguishes between companionship, esteem, and sexual enjoyment as measuring the affectional rewards of a relationship. He states that companionship has been strongly related to marital adjustment, esteem is reflected in few complaints about the spouse, and sexual enjoyment is related to marital satisfaction. I expect that higher educated women are more satisfied with their relationship (van Damme and Dykstra 2018) and those that are more satisfied will be less likely to break up (Karney and Bradbury 1995).

### 5.2.1.2 Material Rewards

Examples of material rewards are family income and joint homeownership. Oppenheimer (1997) argued, in her criticism of Gary Becker's specialization and trade model, that Becker did not take into account the inflexibility and riskiness of one-earner households and stated that one should consider the absolute level of standard of living of the couple (or the wife alone) to assess its' marital stability. Thus, one can expect from Oppenheimer's perspective that higher educated women are in couples with more financial resources and that such couples are less likely to break up because they are more flexible and have a less risky intra-household division of labour. I add to Levinger's determinants the possession of durables in the
household as a measure of non-deprivation and his unemployment as an economic stressor, following Boertien and Härkönen (2018).

### 5.2.1.3 Symbolic Rewards

Among the rewards with a symbolic meaning, Levinger refers to the spouse's education and occupational status, next to similarity in social characteristics like education, religion, and age. These variables are indicators of a couple's social rank in society or status in the community. If she has a higher education, his education and social status are usually higher (in case of homogamy (e.g. Grow and Van Bavel 2015; Schwartz and Mare 2005)), but higher education may also be related to a higher income and thus a better living standard, better communication skills, and more importance of companionship with the spouse (Levinger 1976).

Social similarities like education and age similarities between the partners may reflect the couple's ability to communicate. In addition, educational similarity may go together with similar beliefs and attitudes, whereas age similarity with similar interests and physical health. Homogamous couples may thus be less likely to break up (Kalmijn et al. 2005; Petts 2016), although Levinger notes that this would apply less to hetereogamous couples who have "[...] free[d] themselves from the disjunctive forces of their social backgrounds" (Levinger 1976: p. 33), something that may have mattered more some decades ago than in nowadays society.

In any case, I will examine the mediating/confounding influence of educational similarity of the spouses, along with age difference. I expect that higher educated women are more likely to be in a homogamous or female hypergamous relationship (Schwartz and Han 2014). However, based on the aforementioned theoretical arguments, I do not have an expectation about the likelihood of breaking up of homogamous couples versus educational/age (dis)similar couples. I will also directly include conflict resolution skills of the couple to assess mediating effects of possible better communication among the higher educated (Amato 1996) and a negative association between communication and separation.

### 5.2.2 Barriers to Leave the Relationship

### 5.2.2.1 Affectional Costs

Dependent children are one example of affectional costs. Childless couples are found to be more likely to break up than couples with children (even after controlling for union duration) (Liefbroer and Dourleijn 2006). ${ }^{2}$ Some studies have pointed

[^9]out that, even though the higher educated postpone having children more often than the lower educated, they catch up by having a smaller spacing period between consecutive childbirths and therefore the completed family size of higher educated mothers would be similar to those of lower educated ones (conditional upon age at first birth) (e.g. Castro Martin 2006). However, others demonstrated that a negative educational gradient of quantum fertility exists and that postponement played a large role in explaining this, at least in the UK (e.g. Berrington, Stone, and Beaujouan 2015). It is thus unclear what to expect when it comes to a mediating effect of having children on the association between her education and union dissolution depending upon whether I will find a relationship between her education and affectional costs (i.e. having (young) children).

### 5.2.2.2 Material Costs

Material costs may consist of all sorts of financial expenses such as the loss of economies of scale and divorce costs (e.g. filing for divorce, legal services, child maintenance), but also the home ownership status of the partner. If he owns a house and she does not, or he earns more than she does and she has little independent income, she loses more from the relationship than if her contribution is substantial. Thus, a woman can afford to break up more easily if she can support herself outside of the union (e.g. Sayer and Bianchi 2000; van Damme and Kalmijn 2014). I estimate economic independence by occupational status. The lower her status is, the more it would be a barrier to break up, just like her unemployment would be.

Women's independent social status might also matter in a different way though. In some cases, a woman might improve her financial situation if her husband was exploiting her financially (i.e. he uses most of the income for other than household purposes and consequently she (and the rest of the household) lives in poverty). Moreover, Levinger put forward that in the lower economic strata women would have less to lose materially than in the higher strata. The direction of a mediation effect of women's own occupational status is thus not entirely clear.

### 5.2.2.3 Symbolic Costs

Levinger states that marriage is also a "symbolic acknowledgement of one's place in a culture and in a kin network" (Levinger 1976: p. 36). He sums up obligational feelings towards the marital bond, religious constraints, and external pressure from primary groups and community. The first factor concerns commitment towards the partner: if a spouse is highly committed, the less likely she will break up or even think about breaking up. Previous divorce experiences and parental divorce are indicative of a person's tolerance to break up (Dronkers and Härkönen 2008;

[^10]Poortman and Lyngstad 2007). Even though there might be differences between divorce risks of different religious denominations, having had a religious ceremony is positively related with marital stability, just like church attendance is. ${ }^{3}$ Connected kinship and friendship networks are also important for marital stability [e.g. the quality of intergenerational relationships, in-law relationships, and broader social contexts (Högnäs and Carlson 2010)], although in the case of disapproval by tight networks the divorce risk of the couple may be higher - this especially applies to women's network (Sprecher and Felmlee 1992). Small communities (rural areas) have lower divorce risks than larger ones due to larger social pressure and the couple's social visibility. ${ }^{4}$

I expect that her education negatively relates to union dissolution tolerance since higher educated couples will be more capable to break through the social and economic barriers and divorce stigma (education has a 'liberating' effect (Blossfeld et al. 1995)). Regarding commitment, my expectation is less clear: on the one hand, higher educated couples may be less committed due to their (economically) more independent position (Becker 1981), on the other hand, selection effects may lead to a pattern of more committed couples among the higher educated because these couples take longer before they form a union (Blossfeld and Huinink 1991). I expect that union dissolution tolerance is positively associated to break up and commitment negatively.

### 5.2.3 General Hypotheses on Attractions and Barriers

As presented in Fig. 5.1a, I expect that attractions, like family income, nondeprivation, his social status, age and educational homogamy, and relationship satisfaction are indicative for a lower break-up rate of the couple. Assuming that her education is associated to all of these rewards (symbolic, material, and affectional) (perhaps with the exception of educational/age (dis)similarity), her higher education is expected to lead to a lower break-up rate due to the higher attractions to stay together (H1). In contrast (see Fig. 5.1b), I expect lower barriers to be related to her education because higher education might go together with less material and symbolic costs to break-up (for affectional costs, I do not have an expectation). I expect that her higher education is related to higher break-up rates because she has lower barriers (costs) to disrupt the relationship (H2) (and thus barriers suppress the negative educational gradient of union dissolution).

[^11]
### 5.2.4 The Observed Context

I pool and compare six countries that differ remarkably on their divorce rate (access to divorce) and welfare state provision. The first component was found to be important by Matysiak et al. (2014) in their meta-analysis on European countries. The latter one is considered to be a prominent (cluster of) cross-national explanatory factors by Puur et al. (2016). Note, however, that others have found that in more generous welfare states the educational gradient more often is positive rather than negative (Härkönen and Dronkers 2006), although their expectation was otherwise. Generous welfare state benefits and services were expected to increase women's economic independence, which is especially beneficial for the lower educated who might then take the decision to break up more easily.

In Table 5.1, the Crude Divorce Rate (CDR), the female labour force participation rate, institutional child care support for working mothers, and single parent allowances are shown for 2005 (if available for that year). In Russia, the CDR is highest, followed by Czech Republic, France, and Austria respectively. In Bulgaria and especially in Georgia, the CDR is low. A better indicator of the divorce rate in a country is the Total Divorce Rate (TDR) (not presented) and this indicator gives a similar country ordering (no data available for Georgia and Russia).

I expect that a combination of divorce access (represented by the CDR, an indication of the social costs of divorce) and welfare state generosity (indicating the economic costs of divorce) will guide the cross-national differences I might find in the extent of educational differences in union dissolution rates. Lower social and economic costs of divorce will be related to a more negative educational gradient as the barriers to break up for the lower educated are reduced in such societies. I expect that the negative gradient is strongest in Czech Republic, Austria, and France, where both access to divorce and welfare state provisions are ample, followed by Russia, which has high access to divorce but low welfare state provisions compared to the other countries. The weakest gradient I expect in Bulgaria and Georgia, where both access to divorce and welfare state provisions are low (H3).

### 5.3 Data, Operationalization, and Method

I use the first two waves of the Generations and Gender Survey (GGS) to explain educational differences in union disruption. Eleven European countries have participated in two waves of this survey, but I selected only six countries because of their large variation in the divorce rate (Table 5.1, column 1) and the availability of mediating variables. ${ }^{5}$ The first wave was held in the period 2004 to 2009 (the year varies

[^12]Table 5.1 Divorce access and welfare state provisions for six GGS countries

|  | Crude divorce Rate (CDR) $(2005)^{a}$ | Age standardized female labour force participation rate (2005) ${ }^{\text {b }}$ | Daily school hours primary school (2003) ${ }^{\mathrm{c}}$ | Child care coverage rates for pre-school children (3-6) $(2000)^{\text {d }}$ | Maternity leave (no of paid weeks) (2002) ${ }^{\text {e }}$ | Parental leave (no of paid weeks) $(2005)^{\mathrm{f}}$ | Monthly social assistance for lone parent with two children (2001)s |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CZ | 3.1 | 79 | 9 | 85 | 28 | 156 | 651 |
| AT | 2.4 | 80 | $5.4{ }^{\text {h }}$ | 68 | 16 | 104 | $1300{ }^{\text {p }}$ |
| FR | 2.5 | 80 | 7 | 99 | 16 | 156 | $913{ }^{\text {q }}$ |
| RU | 4.2 | 82 | $6^{\text {i }}$ | 68 | $18^{\mathrm{k}}$ | $78^{\text {m }}$ |  |
| BG | 1.9 | 72 | Half/full day ${ }^{j}$ | 67 | 19 | $104{ }^{\text {n }}$ | N.A. |
| GE | 0.4 | 65 |  | 28 | $18^{1}$ | $50^{\circ}$ | N.A. ${ }^{\text {r }}$ |

${ }^{\text {a }}$ Sources: Demographic Yearbook United Nations
${ }^{\text {b }}$ International Labour Organization, 2005 (Key Indicators of the Labour Market): derived January 18, 2018 from http://kilm.ilo.org/KILMnetBeta/default2.asp
${ }^{\text {c }}$ Family Policy Database, version 2 (2003): own calculations: weekly hours/5, 2003 (retrieved April 29, 2010)
${ }^{d} O E C D(2001) ;$ RU, BG, GE: TransMONEE 2007 Database, UNICEF (2007) (retrieved 29/06/2010)
${ }^{\text {e}}$ www.cesifo-group.de/ifoHome/facts/DICE/Social-Policy/...mat.../Dur-mat-lea.xls (retrieved May 23, 2018)
${ }^{\text {f }}$ OECD family database http://www.oecd.org/els/family/database.htm (retrieved 29/06/2010); RU, BG: The Clearinghouse on International Developments on Child, Youth and Family Policies (2004)
${ }^{\mathrm{g}}$ Average monthly amounts. Including housing costs, special needs benefits and occasional payments. SaMip: Social Assistance and Minimum Income Protection Dataset (SAMIP), provided as part of the Social Policy Indicator Database (SPIN). http://www.spin.su.se/datasets/samip. National currency MIP's for lone parents are converted into PPP's (dollars) based on https://data. oecd.org/conversion/purchasing-power-parities-ppp.htm (retrieved May 7, 2018)
${ }^{\text {h }}$ http://www.expatfocus.com/expatriate-austria-education-schools
${ }^{i} h t t p s: / / w w w . j u s t l a n d e d . c o m / e n g l i s h / R u s s i a / R u s s i a-G u i d e / E d u c a t i o n / R u s s i a n-S c h o o l s ~$
${ }^{j}$ Eurydice: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Bulgaria:Organisation_ of_Early_Childhood_Education_and_Care
${ }^{\mathrm{k}}$ Gerber and Perelli-Harris (2012)
${ }^{1}$ https://onlinelibrary.wiley.com/doi/epdf/10.1111/issr. 12128 and correspondence with Dimitri Gugushvili (May 20, 2018)
${ }^{m}$ Data for 2000 . After 28 weeks minimum wage instead of $100 \%$ payment
${ }^{n}$ Data for 2000. After 6 months minimum wage instead of $90 \%$ payment
${ }^{\text {ohttps: }} / / \mathrm{en}$. wikipedia.org/wiki/Parental_leave\#Europe_and_Central_Asia (retrieved May 7, 2018)
${ }^{\mathrm{p}}$ Austrian schilling expressed in US dollars, current rate
${ }^{\text {q }}$ French francs expressed in US dollars, current rate
${ }^{\mathrm{r}}$ Correspondence with Dimitri Gugushvili (May 20, 2018)
per country, but mostly in 2004 or 2005) and the second wave in 2007-2013 (mostly 2007). The units of analyses are women (aged 18-45 years) ${ }^{6}$ in couples who live with a spouse/partner in the same household (and none of them is not enrolled in education as a main activity) ( N coupled women $=8599$ ). After list wise deletion of missing cases on independent variables I am left with 7086 cases ( $\mathrm{N}=322$ separations). I weight the data so that each of the six countries has equal weight in the country fixed effects models.

I operationalize the dependent variable as a break up (of a marriage or cohabitation) between the two consecutive waves based on the question in the partnership history of what happened with the partnership of wave 1 (currently living together, broke up, partner died). In Austria, about 10\% break up, in Russia 7.0\%, in France $7.7 \%$, in Czech Republic 5.5\%, in Bulgaria 1.6\%, and in Georgia 0.8\%. ${ }^{7}$ Female education is measured in 7 ISCED categories and recoded into three-categorical variables: $0 / 1 / 2=$ low (reference category); $3 / 4=$ mid; $5 / 6=$ high. This was necessary because of the comparability of the measure between the different countries and the rather small sample sizes. In Table 5.2 are the mediating variables (attractions and barriers) listed with their operationalization and descriptives. I also included the following concomitant variables: age at union formation, union duration, whether cohabiting (before marriage), mother's educational level, and working hours. Note that I also included a 'missingness' category for the social status variables (imputed by the average ISEI on the status variable itself) and for conflict resolution skills ( $18 \%$ of the cases was missing).

To analyse to what extent I can explain the negative female educational gradient of union dissolution by mediating variables, I use the khb-decomposition (Karlson-Holm-Breen) (Breen et al. 2013; Karlson et al. 2012) for nested nonlinear probability models. This technique takes into account the rescaling of the variance of the dichotomous dependent variable (Mood 2010) when more variables are introduced into the model and hence decomposes the total effect into a mediation and a rescaling effect. It corrects the scale of the dependent variable of the reduced model (which is the model without the mediator(s)) by including the residual of the confounding variable(s) predicted by the main independent variable instead of the confounding variable itself. ${ }^{8}$ By doing so, the method rescales the reduced equation to

[^13]Table 5.2 Description of dependent, mediating and confounding variables explaining the negative female educational gradient of union dissolution

|  | Description | Mean | Standard deviation (in case of nondichotomous variable) |
| :---: | :---: | :---: | :---: |
| Break up | Rooting after the question whether respondent is now living together with the same partner/ spouse with whom (s)he lived in [month year of first wave]? - > What happened with this partnership? <br> (1) Currently living together; (2) Broke up; (3) Partner died. Recode (1) into (0), (2) into (1) and (3) into (missing) | 0.05 |  |
| Attractions |  |  |  |
| Affectional rewards |  |  |  |
| Relationship satisfaction | How satisfied are you with your relationship with your partner/spouse? Not at all satisfied (0) to completely satisfied (10) | 8.47 | 1.81 |
| Material rewards |  |  |  |
| Family income | Approximate range of the net monthly income of your household: (1) 499 euro or less; (2) 500-999 euro; (3) 1000-1499 euro; (4) 1500-1999 euro: (5) 2000-2499 euro; (6) 2500-2999 euro; (7) 3000-4999 euro; (8) 5000 euro or more ${ }^{\text {a }}$ | 3.29 | 2.41 |
| Possession durables | Things household possesses and can afford: Color TV; Video recorder/DVD player; Washing machine; Microwave; Home computer; Dishwasher; Telephone (whether fixed/mobile); Car/van available for private use. (1) yes; (2) would like but cannot afford; (3) do not have for other reasons. Recode (2) into (1) and the other categories into (0). Average score of 8 items | 0.20 | 0.27 |
| His unemployment | Respondents' or spouses' reported activity status is unemployed (males) | 0.10 |  |
| Symbolic rewards |  |  |  |
| Education male partner | Categorized ISCED scale into (1) low (ISCED 0/1/2) (ref cat); (2) medium (ISCED3/4); (3) high (ISCED 5/6) | $\begin{aligned} & 0.13 \\ & 0.56 \\ & 0.31 \end{aligned}$ |  |
| Educational similarity of the couple | (1) Female education $>$ male education (ref. cat); (2); homogamous; (3) Male education > female education (Use of 7 category ISCED variable) | $\begin{aligned} & 0.24 \\ & 0.55 \\ & 0.21 \end{aligned}$ |  |
| (Higher) occupational status male partner | ISEI (code 16-90) derived from ISCO. Those that were not having a job at all (also not in the 3 years before) were given the imputed average ISEI score. | 41 | 15 |
| Age similarity of the couple | Age respondent (wife) - age partner (husband) | $-3.32$ | 4.45 |

Table 5.2 (continued)

|  |  |  | Standard <br> deviation (in <br> case of <br> non- <br> dichotomous <br> variable) |
| :--- | :--- | :--- | :--- |
|  | Description |  |  |

## Barriers

| Affectional costs |  |  |  |
| :--- | :--- | :--- | :--- |
| Having young <br> children | Having children in the age between 0-6 | 0.31 |  |


| Material costs |  |  |  |
| :--- | :--- | :--- | :--- |
| Home ownership | Does your household own or rent this <br> accommodation or does it come rent-free? (1) <br> owner; (2) tenant or subtenant, paying rent; (3) <br> accommodation is provided rent-free; (4) other. <br> Collapsed into (0) non-owner; (1) owner | 0.69 |  |
| (Lower) <br> occupational <br> status female | ISEI (code 16-90) derived from ISCO. Those that <br> were not having a job at all (also not in the 3 years <br> before) were given the imputed average ISEI <br> score. | 62 | 15 |
| Her <br> unemployment | Respondents' or spouses' reported activity status <br> is unemployed (females) | 0.10 |  |

[^14]Table 5.2 (continued)

|  |  |  | Standard <br> deviation (in <br> case of <br> non- <br> dichotomous <br> variable) |
| :--- | :--- | :--- | :--- |
|  | Description |  |  |

the scale of the full equation and therefore the coefficients of the independent variable in the two models (reduced and full) can be subtracted from each other to get the direct effect. The method holds the error distribution constant between the full and the reduced model. Hence this method is unaffected by rescaling (i.e., changes in the variance of the error distribution) and by the changes in the shape of the error distribution across nested models.

I include the variables stepwise in the model to check if their contribution as an explanatory factor changes much when the model is more complex: first, I include all attractions together in the model (Tables 5.3a and 5.3b, 2nd and 3rd column). Then I examine a model with all barriers (Tables 5.3a and 5.3b, 5th and 6th column) (hence, no attractions). Subsequently, I get a very extensive model (with both attractions and barriers) which includes also many variables that are explaining less than $15 \%$ of the total negative educational difference (Tables 5.3a and 5.3b, 7th and 8th column). As a final model, I therefore estimate a more parsimonious model by delet-
ing those variables from the model which explain less than $15 \% \mid$ of the total effect, which gives me the final model that I interpret (Tables 5.3a and 5.3b, final columns). I performed even more stepwise models than this, by including groups of attractions (e.g. only affectional rewards (relationship satisfaction), material rewards (his status, non-deprivation, or unemployment), and so on) or groups of barriers. I also checked all influences of each variable separately to detect problems with the inclusion of too many variables at the same time: the confounding effects in these very parsimonious models are mostly similar to the ones in the extensive final model (I will mention where this is not the case).

### 5.4 Results

### 5.4.1 Khb-Mediation Analyses: Pooled Country Model

Indeed, in the pooled country model (controlled for confounders ${ }^{9}$ ), I find a negative educational gradient (Tables 5.3a and 5.3b, first column). Both the difference between her mid education and low education $(-0.244)$ and the difference between her high education and low education ( -0.253 ) are negative (but both are not significant in the empty model). In other words: higher and mid educated women are less likely to break up than lower educated women. How can I explain this negative gradient? In the Tables, I first show the coefficients of the indirect effects of the mediating variables. (See the appendix for the decomposition of indirect effects into conditional direct effects of education ( X ) on the mediators $(\mathrm{Z})$ and conditional direct effects of the mediators $(\mathrm{Z})$ on separation (Y).) Thereafter, in the next column, I present the relative percentages that the indirect effects explain of the total effect of female education on union dissolution. In the discussion of the results, I will mainly refer to these percentages.

### 5.4.1.1 Attractions

Attractions do not explain the educational gradient but suppress it [by in total - 79\% (sum of the third column with percentages explained by attractions, Table 5.3a) of the difference between middle and low education and $-106 \%$ (sum of the third column with percentages explained by attraction, Table 5.3b) of the difference between high and low education]. This is not in line with my hypothesis where I expected that attractions would mediate, but not suppress the negative educational gradient. I actually expected that barrier variables would be suppressors (the higher educated would experience lower barriers to breakup, which in turn would lead to

[^15]Table 5.3a Explaining the negative female educational gradient of union dissolution, khb-mediation analyses results

|  |  | logit (b) |  | logit (b) |  | logit (b) |  | logit (b) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female middle education vs low | -0.244 | -0.436* |  | -0.207 |  | -0.389* |  | -0.421* |  |
|  |  | indirect effect | mediating <br> \% | indirect effect | mediating <br> \% | indirect effect | mediating $\%$ | indirect effect | mediating <br> \% |
| Attractions |  |  |  |  |  |  |  |  |  |
| Relationship satisfaction |  | -0.023 | 9.4\% |  |  | -0.022 | -9.6\% | -0.023 | 10\% |
| Family income |  | 0.002 | -0.8\% |  |  | 0.005 | -2.0\% |  |  |
| Non-deprivation: possession of durables |  | 0.038** | -16\% |  |  | 0.041** | -18\% | 0.036** | -16\% |
| His unemployment |  | -0.009 | 3.8\% |  |  | -0.012 | 5.4\% |  |  |
| His (higher) occupational status |  | 0.012 | -5.3\% |  |  | 0.014 | -6.0\% | 0.016 | -7.2\% |
| His occupational status missing value |  | -0.014 | 5.7\% |  |  | -0.012 | 5.1\% |  |  |
| Age difference |  | 0.000 | -0.1\% |  |  | 0.000 | -0.2\% |  |  |
| Male $>$ female education $=$ ref |  |  |  |  |  |  |  |  |  |
| Homogamous |  | $0.125 * * *$ | -51\% |  |  | $0.134 * * *$ | -60\% | 0.135*** | -60\% |
| Female > male education |  | 0.032 | -13\% |  |  | 0.038 | -17\% | 0.038 | -17\% |
| Talking (not keeping opinion to oneself) |  | 0.001 | -0.5\% |  |  | 0.001 | -0.2\% |  |  |
| Discuss disagreement calmly |  | 0.000 | -0.1\% |  |  | -0.000 | 0.1\% |  |  |
| Extent of no shouting when disagreement |  | -0.000 | 0.2\% |  |  | -0.000 | 0.2\% |  |  |
| Extent of no violence when disagreement |  | 0.006 | -2.4\% |  |  | 0.009 | -4.1\% |  |  |
| Communication skills missing value |  | $0.021^{\text {\# }}$ | -8.7\% |  |  | $0.021^{\text {\# }}$ | -9.1\% | 0.023 ${ }^{\text {\# }}$ | -10\% |

Table 5.3a (continued)

|  | logit (b) |  | logit (b) |  | logit (b) |  | logit (b) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | indirect effect | mediating $\%$ | indirect effect | mediating $\%$ | indirect effect | mediating $\%$ | indirect effect | mediating $\%$ |
| Barriers |  |  |  |  |  |  |  |  |
| Having children <age 6 |  |  | 0.006 | -2.5\% | 0.006 | -2.7\% |  |  |
| Home owner |  |  | -0.008 | 3.0\% | -0.006 | 2.8\% |  |  |
| Her (lower) occupational status |  |  | -0.003 | 1.2\% | -0.006 | 2.5\% | -0.006 | 2.5\% |
| Her occupational status missing value |  |  | -0.003 | 1.3\% | -0.001 | 0.5\% |  |  |
| Her unemployment |  |  | -0.017 | 6.8\% | -0.013 | 5.8\% | -0.018 | 7.9\% |
| Marriage not outdated |  |  | $-0.010^{\text {\# }}$ | 4.1\% | -0.004 | 1.7\% |  |  |
| Number of previous breakups |  |  | -0.017 ${ }^{\text {\# }}$ | 6.6\% | -0.016 ${ }^{\text {\# }}$ | 6.9\% | $-0.016^{\text {\# }}$ | 7.3\% |
| Parental divorce |  |  | -0.001 | 0.5\% | -0.001 | 0.4\% | -0.001 | 0.5\% |
| Parental divorce missing |  |  | -0.003 | 1.0\% | -0.001 | 0.7\% | -0.001 | 0.4\% |
| Being religious |  |  | -0.002 | 0.9\% | -0.002 | 1.1\% |  |  |
| Church attendance |  |  | -0.002 | 0.8\% | -0.003 | 1.2\% |  |  |
| Rural (vs urban) |  |  | 0.013 | -5.1\% | 0.011 | -4.9\% | 0.013 | -5.6\% |
| Inverse mills ratio |  |  |  |  | -0.005 | 2.0\% |  |  |
| Pseudo R ${ }^{2}$ | 0.13*** |  | 0.11*** |  | 0.15*** |  | $0.14 * * *$ |  |
| N | 7086 |  | 7086 |  | 7086 |  | 0.14*** | 7086 |

Country fixed effects weighted pooled model six countries. Explaining the educational difference between middle and low education in the odds of union dissolution
$* * * \mathrm{p}<0.001, * * \mathrm{p}<0.01, * \mathrm{p}<0.05,{ }^{\#} \mathrm{p}<0.10$, two-tailed tested
Table 5.3b Explaining the negative female educational gradient of union dissolution, khb-mediation analyses results

|  |  | logit (b) |  | logit (b) |  | logit (b) |  | logit (b) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female high education vs low | -0.253 | -0.519* |  | -0.150 |  | -0.409 |  | -0.460 ${ }^{\text {\# }}$ |  |
|  |  | indirect effect | mediating $\%$ | indirect effect | mediating $\%$ | indirect effect | mediating \% | indirect effect | mediating $\%$ |
| Attractions |  |  |  |  |  |  |  |  |  |
| Relationship satisfaction |  | -0.055** | 22\% |  |  | $-0.053 * *$ | 23\% | $-0.054 * * *$ | 25\% |
| Family income |  | 0.004 | -1.7\% |  |  | 0.011 | -4.8\% |  |  |
| Non-deprivation: possession of durables |  | 0.078** | -31\% |  |  | 0.084*** | -37\% | 0.074** | -34\% |
| His unemployment |  | -0.009 | 3.7\% |  |  | -0.012 | 5.4\% |  |  |
| His (higher) occupational status |  | 0.046 | -18\% |  |  | 0.049 | -22\% | 0.058 | -27\% |
| His occupational status missing value |  | -0.012 | 4.9\% |  |  | -0.010 | 4.6\% |  |  |
| Age difference |  | 0.001 | -0.2\% |  |  | 0.001 | -0.3\% |  |  |
| Male $>$ female education $=$ ref |  |  |  |  |  |  |  |  |  |
| Homogamous |  | 0.087*** | -35\% |  |  | 0.093*** | -44\% | 0.094*** | -44\% |
| Female > male education |  | 0.096 | -38\% |  |  | 0.116 | -53\% | 0.114 | -53\% |
| Talking (not keeping opinion to oneself) |  | 0.002 | -0.7\% |  |  | 0.001 | -0.3\% |  |  |
| Discuss disagreement calmly |  | 0.000 | -0.2\% |  |  | -0.000 | 0.1\% |  |  |
| Extent of no shouting when disagreement |  | -0.001 | 0.6\% |  |  | -0.001 | 0.5\% |  |  |
| Extent of no violence when disagreement |  | 0.008 | -3.0\% |  |  | 0.012 | -5.3\% |  |  |
| Communication skills missing value |  | $0.023^{\text {\# }}$ | -9.1\% |  |  | 0.023 ${ }^{\text {\# }}$ | -9.9\% | 0.025 ${ }^{\text {\# }}$ | -11\% |

Table 5.3b (continued)

|  | logit (b) |  | logit (b) |  | logit (b) |  | logit (b) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | indirect effect | mediating $\%$ | indirect effect | mediating <br> \% | indirect effect | mediating <br> \% | indirect effect | mediating <br> \% |
| Barriers |  |  |  |  |  |  |  |  |
| Having children <age 6 |  |  | -0.006 | 2.3\% | -0.006 | 2.7\% |  |  |
| Home owner |  |  | -0.010 | 3.8\% | -0.008 | 3.7\% |  |  |
| Her (lower) occupational status |  |  | -0.016 | 6.0\% | -0.030 | 13\% | -0.030 | 14\% |
| Her occupational status missing value |  |  | -0.010 | 3.7\% | -0.003 | 1.5\% |  |  |
| Her unemployment |  |  | -0.021 | 7.9\% | -0.016 | 7.1\% | -0.021 | 9.9\% |
| Marriage not outdated |  |  | $-0.027 * * *$ | 10\% | -0.010 | 4.4\% |  |  |
| Number of previous breakups |  |  | -0.032* | 12\% | $-0.030^{\text {\# }}$ | 13\% | -0.031* | 14\% |
| Parental divorce |  |  | -0.017* | 6.4\% | -0.013 ${ }^{\text {\# }}$ | 5.5\% | -0.016* | 7.6\% |
| Parental divorce missing |  |  | -0.004 | 1.4\% | -0.002 | 1.0\% | -0.001 | 0.6\% |
| Being religious |  |  | -0.006 | 2.1\% | -0.006 | 2.8\% |  |  |
| Church attendance |  |  | -0.004 | 1.3\% | -0.005 | 2.1\% |  |  |
| Rural (vs urban) |  |  | 0.035 | -13\% | 0.029 | -13\% | 0.033 | -15\% |
| Inverse mills ratio |  |  |  |  | -0.008 | 3.5\% |  |  |
| Pseudo R ${ }^{2}$ | 0.13** |  | $0.11 * * *$ |  | 0.15*** |  |  | $0.14 * * *$ |
| N | 7086 |  | 7086 |  | 7086 |  |  | 7086 |

Country fixed effects weighted pooled model six countries. Explaining the educational difference between high and low education in the odds of union dissolution
$* * * \mathrm{p}<0.001, * * \mathrm{p}<0.01, * \mathrm{p}<0.05,{ }^{\#} \mathrm{p}<0.10$, two-tailed tested
higher breakup rates among the higher educated compared to the lower educated). It turns out to be the other way around. This is especially due to including educational (dis)similarity ${ }^{10}$ (as opposed to having a traditional couple where his education is higher than hers) (e.g. $-51 \%$ of the difference between mid and low education in break-up rates is explained by homogamous couples vs. male hypergamous couples. For the difference between high and low education the explanatory percentage is $-35 \%$ ). This means that educationally homogamous couples are significantly more likely to break up than traditional ones [see e.g. Table 5.5 b with conditional direct effect of $0.205 * * *$ of educational level on educational constellation (homogamy vs male hypergamy in this case)] and because the association between her educational level and whether or not being homogamous is positive ( $0.459 * *$ ), homogamy suppresses the negative educational gradient of divorce (the coefficient of the remaining direct effect is more negative than without controlling for educational constellation). ${ }^{11}$ In other words, if one could take into account the fact that her higher or middle high education very often does not go together with stable traditionally specialized couples, the stability of (middle- or) higher educated couples would have been even greater.

Next to the suppressor effect of educational (dis)similarity as a symbolic reward, material rewards in the form of non-deprivation is an important suppressor variable (non-deprivation increases the educational differences by $16 \%$ or $31 \%$ respectively). Another remarkable result is that having a missing value on communication skills suppresses the negative educational gradient of union dissolution: when respondents do not answer on at least one of the conflict resolution skills variables, they are less likely to separate. And because a missing value on communication skills occurs less frequently among the higher educated, the indirect effect of having a missing value on communication skills is positive. I am unsure how to interpret this suppressor effect of having a missing value on conflict resolution skills. It might be that people on purpose skip these questions because they would score 'badly' on them. But skipping at least one of these questions might also just have been a mistake without any meaning. Therefore, I leave it to future research to find out what it is about communication skills' missing values that suppresses the negative educational gradient of separation. Moreover, one measure of attractions, relationship satisfaction, explains part of the educational gradient of union dissolution (by 9.4\% or $22 \%$ respectively).

[^16]
### 5.4.2 Barriers

Barriers contribute in total $19 \%$ (middle vs low) and $44 \%$ (high vs low) to the explanation of the negative educational gradient of union dissolution [these percentages are the sum of column five in Table 5.3a (19\%) and Table 5.3b (44\%)]. Here, symbolic costs significantly play a role ${ }^{12}$ : the barrier of commitment explains/confounds a part of the (high-low) educational gradient (10\%), just like the barrier of tolerance of divorce (number of previous breakups: $12 \%$ and parental divorce (6.4\%)).

### 5.4.3 The Extensive Model

When including both attractions and barriers together, I see only slight changes in the indirect effects. The only remarkable differences are the increasingly mediating effect of women's lower occupational status (from 6\% to $13 \%$ Table 5.3b) and the decreasing mediating effect of commitment to marriage (from $10 \%$ to $4.4 \%$ Table 5.3b). An attempt to control for selection into partnership is done by including the Inverse Mills Ratio (IMR) of a probit explaining couple formation out of religiosity, age and age ${ }^{2}$, mothers' educational level, working hours, parental divorce, and commitment to marriage ('marriage is an outdated institution') (see Appendix Table 5.6). Including the IMR does not change any of the above-described results, apart from the effect of the commitment variable (because I included this variable in the selection equation) (the extensive model without IMR is not presented here, but can be provided upon request). The explaining percentages of all attractions and barriers hardly change. The indirect effects of the IMR are negative ( -0.005 and -0.008 respectively), which point to a weak impact of selection into couple formation as an explanation of the negative educational effect on union dissolution; the lower educated are more likely to select themselves into a co-residential partnership and those in a union are more likely to break up.

The importance of her (lower) occupational status (explaining $2.5 \%$ or $13 \%$ respectively) seems to indicate that it is not economic independence that matters (would be a non-barrier to break up), but rather that women belonging to the lower economic strata apparently have less to lose (or they experience more (financial) stress (Conger and Elder 1994; Goode 1962; Oppenheimer 1997). If she is higher educated, she is less likely to have a lower status and having a lower status is positively related to the odds of separation (see Appendix Tables 5.5a and 5.5b). Together, this explains part of the negative difference in separation odds between the high/mid educated on the one hand and the low educated on the other.

[^17]
### 5.4.4 The Parsimonious Model

From all the mediating/confounding variables included in the model, several explain less than $15 \%$ of the total effect of education on separation and I estimate a more parsimonious model (based on the high-low educational difference) excluding those variables that contribute little to the explanation of the negative educational gradient (columns eight and nine of Tables 5.3a and 5.3b). Here one can see that the pattern of large suppression by attractions such as educational homogamy and material rewards remains and that affectional rewards (relationship satisfaction), symbolic barriers and some material costs (her lower occupational status) explain part of the educational gradient of union dissolution.

Overall, in the final parsimonious model, one could say that 'attractions' suppress $-144 \%$ of the total educational difference between high and low education in break up rate (sum of explaining percentages of attractions), while 'barriers' explain together $31 \%$ (sum of explaining percentages of barriers) (Table 5.3b). All variables together suppress the high-low difference by $-113 \%(-144 \%+31 \%)$. This is contrary to our hypotheses in which I expected that higher educated women would have more attractions from a relationship and therefore they would be less likely to break up (Note that this is true for relationship satisfaction, but not for other attractions). Here, however, I find that the higher educated have more barriers and that higher attractions are unexpectedly positively related to breaking up, instead of negatively. This is mainly due to the fact that homogamous couples are more likely to break up than traditional male hypergamous couples. For the mid-low educational difference the explaining percentages are $-100 \%$ for attractions, $13 \%$ for barriers, and a total suppression of all variables by $-87 \%$ (Table 5.3a).

Note that these results barely change when I included each variable separately in a model to assess its explanatory value. ${ }^{13}$ The observed pattern remains more or less the same. The explained percentages change somewhat, but educational homogamy remains the most important suppressor and barriers are less important explanatory variables than attractions are suppressing the educational gradient.

[^18]
### 5.4.5 Separate Country Models: Context Dependent Educational Differences

In Table 5.4, I present the country specific educational gradients, both the reduced model (without mediating/confounding variables) and the full model (with the relevant variables - explaining more than $15 \% 1$ - included). Especially remarkable is the large positive educational gradient (full models coefficients: 0.878 and 0.800, respectively) in Russia (excluding this country would lead to a stronger negative educational gradient). As expected, the difference between the high and the low educated is largest in Czech Republic ( -0.747 ), followed by Georgia (unexpected) ( -0.606 ), France ( -0.563 ), and Austria ( -0.539 ). The odds of union dissolution of the mid educated compared to the low educated are not always lower than the odds of break-up of the high educated compared to the low educated (see e.g. France). This is unexpected as well and needs further research in the respective countries. Note that I controlled the reduced models for age at union formation (which takes away part of the selection effect into partnership), union duration, whether cohabiting (before marriage), education of the mother, and working hours.

Would I have had enough power to do country analyses, then I could have compared the reduced with the full models to assess the influence of the indirect effects per country. However, I can only rely upon the pooled country model from above for mediation analyses.

Table 5.4 Cross-national comparison of explaining the negative female educational gradient of union dissolution, khb-mediation analyses results final models

|  | BG | RU | GE | FR | AT | CZ | All |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female mid education vs low |  |  |  |  |  |  |  |
| Reduced <br> model | 0.264 | 1.506 | -0.057 | $-0.680 *$ | -0.253 | 0.136 | -0.224 |
| Full model | 0.376 | 0.878 | 0.143 | $-1.050 * *$ | -0.335 | -0.448 | $-0.421 *$ |
| Female high education vs low        <br> Reduced <br> model -0.196 $1.655 *$ -0.136 -0.277 -0.459 -0.591 -0.216 <br> Full model 0.092 0.800 -0.606 -0.563 -0.539 -0.747 $-0.460^{*}$ <br> Pseudo $\mathrm{R}^{2}$ <br> full model $0.13^{* * *}$ $0.19^{* * *}$ $0.27^{* * *}$ $0.11^{* * *}$ $0.14^{* * *}$ $0.10^{* * *}$ $0.14^{* * *}$ <br> N 2024 1093 1606 837 1145 381 7086 |  |  |  |  |  |  |  |

$* * * \mathrm{p}<0.001, * * \mathrm{p}<0.01, * \mathrm{p}<0.05,{ }^{\mathrm{m}} \mathrm{p}<0.10$, two-tailed tested
Ln (odds ratio's) break-up of marital and cohabitational relationships for six GGS countries (women's reports)

### 5.5 Conclusion and Discussion

In this chapter, I explained the negative female educational gradient of union dissolution in the pooled model of six countries. I indeed found differences in the break-up rate of high educated women compared to low educated women, but this educational difference was only significant in the pooled country models after taking into account suppressor effects (of which homogamy was the most important). This means that the difference between high and low educated women in break-up rate is only statistically significant when I 'fairly' compare the low and high educated. Low educated women are more likely to be in a male hypergamous relationship, whereas high-educated women are more likely to be in a homogamous relationship. Because homogamous couples are more likely to break-up than traditional male hypergamous couples (see also Schwartz and Han 2014), I initially do not find a large negative difference between the high and the low educated women. This difference becomes only visible once I control for relative education.

Moreover, the negative gradient is context dependent, with the strongest negative gradient in Czech Republic and the least strong one in Georgia and Bulgaria, and Austria and France in between. Russia actually has a positive educational gradient. Apart from the Russian positive gradient and the relatively strong negative gradient in Georgia, this is what I expected based on country-differences in social and economic costs of divorce and separation.

Most importantly, I was interested in explaining women's educational influence by Levinger's suggested attractions of the relationship and barriers to break-up. Overall, I found that symbolic costs and her status position in society are important explanatory variables driving the effect of women's education on break up. Apparently, lower educated women (compared to higher educated) who have less to lose socially (as indicated by their lower commitment and higher divorce tolerance) and economically (as measured by their lower occupational status) are more likely to break-up in this sample of six countries. Note that this last finding goes against the commonly made argument in the literature of economic independence (e.g. Cherlin 1992; Oppenheimer 1997). The reason for this may be that men's economic position matters more, rather than women's economic position (e.g. Kalmijn 2011; McLanahan and Percheski 2008). Our mediation analyses also indicates this because men's employment situation affects break-up (completely) through relationship satisfaction (see footnote 13). Furthermore, more material rewards (husbands' social status and household non-deprivation), that I expected to play a role based on Levinger $(1965,1976)$ and Oppenheimer (1997), do not explain the negative gradient, but they suppress it. This can be explained as follows: women with higher education more often have partners with more economic resources. And because
men's economic resources go together with higher odds of union dissolution (when controlling for some concomitant variables), I find that women with higher education are less likely to break-up when I control for men's economic resources. I also found a relatively important mediation effect of relationship satisfaction.

Overall, I could explain about half of the difference in union dissolution odds between high and low educated women. What is it that makes couples with higher female education more stable? Next to relationship satisfaction (which explains $25 \%$ ) this turns out to be costs or 'barriers' (symbolic costs and her socio-economic position - lower educated women have less of these costs to lose) ( $31 \%$ ). These findings are in line with Boertien and Härkönen $(2014,2018)$, although they found a less strong impact of relationship satisfaction. One difference between their study and mine is that they looked at divorces of marriages, whereas I also include breakups of cohabitational relationships. Another one is that they found important mediating effects of home ownership, which I do not find. This might have to do with the partly Eastern-European context I examine, where ownership of the house is common and often transmitted from one generation to the next.

This chapter has several limitations: first, I only examined women's educational level and her likelihood to break-up. Of course, her education could coincide with his education and it might actually be his education that matters more than hers. Future research would have to tell, but this study indicated that there is some overlap between his and her education, although relative education seemed to be more important than his education as a suppressing factor. Secondly, further research on context dependent explanations of the educational gradient of union dissolution needs to be done. I could not do that here because of the small sample sizes in each country, but the future GGP2020 data might provide some more insight.

To conclude, my study suggests that Goode might have been right in predicting that lower educated couples are less stable in principle because they experience more family strain. With the reduction of social and economic costs of divorce in European societies, divorce and separation have become available to all social strata, and nowadays occur even more frequently among the lower ones.

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## Appendices

Table 5.5a Ad Table 5.3a. Explaining the educational difference between mid and low education in the odds of union dissolution, khb-mediation analyses results

|  | logit (b) |  |
| :---: | :---: | :---: |
|  | X-> Z | Z-> Y |
| Attractions |  |  |
| Relationship satisfaction | 0.095 | $-0.239 * * *$ |
| Family income |  |  |
| Non-deprivation: possession of durables | 0.039*** | 0.943* |
| His unemployment |  |  |
| His (higher) occupational status | 3.656*** | 0.004 |
| His occupational status missing value |  |  |
| Age difference |  |  |
| Male $>$ female education $=$ ref |  |  |
| Homogamous | 0.294*** | 0.459** |
| Female > male education | 0.148*** | 0.255 |
| Talking (not keeping opinion to oneself) |  |  |
| Discuss disagreement calmly |  |  |
| Extent of no shouting when disagreement |  |  |
| Extent of no violence when disagreement |  |  |
| Communication skills missing value | -0.042** | $-0.543^{\text {\# }}$ |
| Barriers |  |  |
| Having children <age 6 |  |  |
| Home owner |  |  |
| Her (lower) occupational status | -3.614 | 0.002 |
| Her occupational status missing value |  |  |
| Her unemployment | -0.051*** | 0.343 |
| Marriage not outdated |  |  |
| Number of previous breakups | -0.071*** | 0.232 ${ }^{\text {\# }}$ |
| Parental divorce | -0.003 | 0.324* |
| Parental divorce missing | 0.013 | -0.074 |
| Being religious |  |  |
| Church attendance |  |  |
| Rural (vs urban) | -0.071** | -0.176 |
| Inverse mills ratio |  |  |
| Pseudo R ${ }^{2}$ | Based on different models | 0.14*** |
| N | 7086 |  |

Country fixed effects weighted pooled model six countries. Explaining the educational difference between middle and low education in the odds of union dissolution. Decomposition of indirect effect
$* * * \mathrm{p}<0.001, * * \mathrm{p}<0.01, * \mathrm{p}<0.05,{ }^{\#} \mathrm{p}<0.10$, two-tailed tested. Note that due to rounding the product of $\mathrm{X}->\mathrm{Z}$ and $\mathrm{Z}->\mathrm{Y}$ does not always exactly equal the indirect effect presented in Table 5.3a

Table 5.5b Ad Table 5.3b. Explaining the educational difference between high and low education in the odds of union dissolution, khb-mediation analyses results

|  | $\operatorname{logit}(\mathrm{b})$ |  |
| :---: | :---: | :---: |
|  | X-> Z | Z-> Y |
| Attractions |  |  |
| Relationship satisfaction | 0.227** | $-0.239 * * *$ |
| Family income |  |  |
| Non-deprivation: possession of durables | 0.079*** | 0.943* |
| His unemployment |  |  |
| His (higher) occupational status | 13.103*** | 0.004 |
| His occupational status missing value |  |  |
| Age difference |  |  |
| Male > female education $=$ ref |  |  |
| Homogamous | 0.205*** | 0.459** |
| Female > male education | $0.449 * * *$ | 0.255 |
| Talking (not keeping opinion to oneself) |  |  |
| Discuss disagreement calmly |  |  |
| Extent of no shouting when disagreement |  |  |
| Extent of no violence when disagreement |  |  |
| Communication skills missing value | -0.045** | $-0.543^{\text {\# }}$ |
| Barriers |  |  |
| Having children <age 6 |  |  |
| Home owner |  |  |
| Her (lower) occupational status | -18.918 | 0.002 |
| Her occupational status missing value |  |  |
| Her unemployment | -0.062 | 0.343 |
| Marriage not outdated |  |  |
| Number of previous breakups | -0.134*** | $0.232^{*}$ |
| Parental divorce | -0.051** | 0.324* |
| Parental divorce missing | 0.018 | -0.074 |
| Being religious |  |  |
| Church attendance |  |  |
| Rural (vs. urban) | -0.187*** | -0.176 |
| Inverse mills ratio |  |  |
| Pseudo $\mathrm{R}^{2}$ | Based on different models | 0.14*** |
| N | 7086 |  |

Country fixed effects weighted pooled model six countries. Explaining the educational difference between high and low education in the odds of union dissolution
$* * * \mathrm{p}<0.001, * * \mathrm{p}<0.01, * \mathrm{p}<0.05,{ }^{\#} \mathrm{p}<0.10$, two-tailed tested. Note that due to rounding the product of $\mathrm{X}->\mathrm{Z}$ and $\mathrm{Z}->\mathrm{Y}$ does not always exactly equal the indirect effect presented in Table 5.3b

Table 5.6 Selection model of partnership formation, six countries, GGS

|  | b |
| :---: | :---: |
| Mid education | 0.018 |
|  | (0.029) |
| High education | -0.009 |
|  | (0.033) |
| Religious | -0.012 |
|  | (0.035) |
| Age | 0.141*** |
|  | (0.004) |
| Age ${ }^{2}$ | -0.002*** |
|  | (0.000) |
| Mid education mother | -0.075** |
|  | (0.028) |
| High education mother | -0.156*** |
|  | (0.038) |
| Education mother missing | -0.057 |
|  | (0.036) |
| Working hours | -0.000 |
|  | (0.001) |
| Parental divorce | -0.156*** |
|  | (0.030) |
| Parental divorce missing | 0.027 |
|  | (0.060) |
| Marriage is outdated | 0.130*** |
|  | (0.010) |
| Russia | $-0.410 * * *$ |
|  | (0.028) |
| Georgia | -0.194*** |
|  | (0.029) |
| France | $-0.282 * * *$ |
|  | (0.030) |
| Austria | $-0.279 * * *$ |
|  | (0.035) |
| Czech Republic | -0.361*** |
|  | (0.045) |
| Constant | $-2.629 * * *$ |
|  | (0.102) |
| Chi ${ }^{2}$ (df) | $1904 * * *(17)$ |

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# Chapter 6 <br> The More the Merrier? The Effect of Children on Divorce in a Pronatalist Society 

Amit Kaplan, Miri Endeweld, and Anat Herbst-Debby


#### Abstract

While most studies on the effect of children on divorce focus on countries with fertility levels below or near replacement level, we explore whether the stabilizing effect of children on marriage holds in the OECD country with the highest fertility rate - Israel. This high rate allowed us to examine the non-linear effects of having many children on divorce. We also examined whether the pattern of this relationship depends on the couple's ethnic and economic position. Based on a dataset which merged administrative data from the tax authorities with the National Insurance Institute database, we took a random sample of $25 \%$ of all women who married in 2003 and followed them until 2015. Findings for the total sample revealed a positive, albeit non-linear, effect of number of children on divorce, while young children at home decreased divorce risks. However, the effect of number of children on the likelihood to divorce was dependent upon income and ethnic group. Children stabilized marriage among Israeli-Palestinians and destabilized it among IsraeliJews, though with decreasing effects from the first to the third child. Findings are discussed with regard to the importance of examining relations between children and divorce across groups in the society.


Keywords Children • Divorce • Ethnicity • Earnings • Fertility

[^19]
### 6.1 Introduction

This research examines the effects on divorce of the number of children, as well as having young children, in the pronatalist society of Israel. By analyzing the relation between children and divorce in this context, we can address two theoretical questions that have remained open in the literature. First, does the number of children have a consistent linear effect on divorce? Second, to what extent does the relation between children and divorce depend on the couple's ethnic and socioeconomic group?

Israel has the highest fertility rate among OECD countries today: an average of 3.08 children per woman compared to 1.68 in the OECD (2017). While fertility rates across Europe, though varied, are generally low, and in some countries have been below population replacement level for more than 20 years (Esping-Andersen and Billari 2015; Eurostat 2017), the fertility rate in Israel has been high and rather stable for the past two decades (ICBS 2018). Indeed, the rate in Israel during the period under study (2003-2015) was high even compared to the time when most OECD countries had high fertility rates (Billari and Kohler 2004; OECD 2018). The large proportion of Israeli families with many children enables us to look for a change in the direction of the relation between children and divorce after the number of children exceeds a certain threshold. On the one hand, the more children there are, the more the couple has already passed the selection stage of one child (Jalovaara 2013), suggesting that marriages with many children are more stable. On the other hand, a large number of children can place considerable pressure on parents, suggesting a destabilizing effect. This issue is especially acute as Israeli family policies are neither particularly supportive nor generous (Gal 2010; Herbst 2013; Herbst and Kaplan 2016; Herbst-Debby 2019).

Notwithstanding the high aggregate level of fertility in Israel, there is diversity in regard to this factor across ethnic and religious groups (Okun 2013). Among IsraeliPalestinian women, fertility has declined sharply in the last few decades. For Muslims - the largest group among the Palestinians - the rate dropped from 9.2 children per woman in the 1960s to 3.4 in 2017 (ICBS 2018). In comparison, the average fertility rate of Jewish women declined from 3.4 in the 1960s to 2.6 in 1990s and then returned to 3.2 in 2017 (ICBS 2018; Levy 2016). This variation in fertility and family patterns between the two ethnic groups - which has also been found with regard to migration in other countries (Furtado et al. 2013; Hewitt 2008) - intersects with socioeconomic inequality, as Jews are economically better off than Palestinians (Swirski et al. 2017). Moreover, earnings inequality in Israel is among the highest compared to the OECD countries: cost of living is high (Rosenhek and Shalev 2013), as are poverty rates of children (Endeweld et al. 2018). Given the diverging destinies thesis (McLanahan 2004; McLanahan and Jacobsen 2014) and the stratified patterns of divorce perspective (Härkönen and Dronkers 2006; Kaplan and Herbst 2015), it is important to examine how relations between children and divorce vary across both ethnic and socioeconomic groups. Accordingly, we will compare Jews and Palestinians, controlling for economic inequality between these
two groups. ${ }^{1}$ This examination will enable us to learn whether and how the effect of children on divorce is contextual, a subject that has received limited attention (for exceptions, see Chan and Halpin 2002, 2008; Hart et al. 2017; Jalovaara 2013).

To address the above issues, we use a unique dataset created specifically for this research that merged administrative data from the tax authorities with the National Insurance Institute (NII) database. We focus on those women who married in 2003, following them until 2015. These data include information on ethnicity, as well as detailed time-varied information on several dimensions of children, income and marital status, enabling us to control for the endogeneity between children and divorce (Svarer and Verner 2008).

The research examines two main questions: How are two aspects of having children (young children at home and number of children) related to the likelihood of divorce in Israeli society? Does the relations between children and divorce vary when comparing Israeli-Jews to Israeli-Palestinians, as well as household income levels?

### 6.2 Pronatalism in Israeli Society

The majority of scholars consider Israel a family-centered society (Fogiel-Bijaoui 2002; Hashiloni-Dolev 2018; Izraeli 1988). This assertion is founded on behavioral, cultural and policy criteria. At the behavioral level, Israel is characterized by relatively high marriage and birth rates, as well as low divorce rates, compared to most other Western societies (Fogiel-Bijaoui 2002; OECD 2018). With regard to divorce, rates doubled from the early 1970s to the late 1990s, reaching a certain level of stabilization in the last decade (ICBS 2018). According to the NII data used for this research, the rate of families of divorce with children dropped from $8.6 \%$ in 2003 to $8.3 \%$ in 2015.

The importance that Israeli culture attaches to family life in general and childbirth in particular can be attributed to various factors: the Jewish faith, collective Holocaust trauma, ongoing security concerns and the "demographic problem" of a growing Israeli-Palestinian population (Fogiel-Bijaoui 2002; Izraeli 1988; Peres and Katz 1991).

Israel's high fertility rates go hand in hand with its pronatalist policy, which, since the state's establishment, has encouraged (mainly Jewish) women to have many children (Berkovitch 1997). Indeed, Israel has historically had a pronatal welfare policy for Jewish women; specifically, the enduring Israeli-Palestinian conflict and the ongoing growth of the Palestinian minority has led to the construction of motherhood as a national mission for Jews (Yuval-Davis 1996) and the framing of

[^20]the conflict as a "demographic threat" to them (Berkovitch 1997). In the early years of the Israeli state, a special grant was given to women who had ten children or more (Stoler-Liss 2003). The state thus views the Jewish mother's womb as a means of coping with existential fear (Yuval-Davis 1996). Jewish mothers have played an inherent role in Israeli nation-building, and the welfare benefits accorded them are meant to help achieve that goal. Ajzenstadt and Gal (2001) argued that Israel's welfare policy has been marked by a concern for national-demographic goals, and less with women as individuals who require social benefits. This claim is reflected in the fact that Israel has the world's highest number of fertility clinics proportionate to population size (Hashiloni-Dolev 2006). Single Israeli women have the same entitlements and access to assisted fertility as do married women, which is by no means self-evident in developed countries (Hacker 2012). Israeli nationalist discourse underlies the Single-Parent Family Law, enacted in 1992 during peak immigration from the former Soviet Union, which, among other things, expanded income support allowances for poor single mothers, offering mothers compensation for childcare duties (Helman 2011). The central justification for the legislation was that these mothers take part in the Zionist project either as immigrants or as women raising its future generations (Herbst and Benjamin 2012).

However, Israel's pronatalist policy is a double-edged sword. While welfare policy and the courts have codified the right to bear offspring and women are encouraged to have many children, the state has not ensured the family's economic wherewithal to raise them (Renan Barzilay 2012). This aspect of policy has worsened since the 2003 welfare reform (Herbst 2013), which instituted cutbacks anchored in a neoliberal ideology that delegitimized welfare recipients and disadvantaged segments of society (Ajzenstadt 2009; Herbst 2013). The reforms reduced child support (payment assurance) allowances (given by the state in the case of non-paying fathers) and cut income support allowances by $25-35 \%$ and universal child allowances by $40-50 \%$ (NII 2004). In fact, despite the high fertility rates, Israel has among the lowest level of child benefits relative to the OECD average in terms of both payments per capita and the average wage (about $1.6 \%$ of average wage compared to $4 \%$ in the OECD; Bendelac 2017). These reforms have significantly pushed up poverty rates, especially for families with children (Endeweld et al. 2018). The current research examines relations between children and divorce within this context.

### 6.3 The Relation Between Children and Divorce

Several theoretical links between childbearing and divorce have been suggested in the literature, with a distinction between those who see children as a stabilizing mechanism and those who see them as destabilizing. The dominant approach on the subject - the economic approach - suggests that children reduce the likelihood of divorce as they constitute "union-specific capital" (Becker et al. 1977). Children are a marital-specific investment and hence become less valuable to parents when the
marriage dissolves (Becker et al. 1977). Marital-specific capital increases marital gains in the current marriage more than outside utility, lowering the probability of divorce (Chiappori et al. 2016). Another theoretical approach in this direction, of social psychology (Brines and Joyner 1999), views children as a joint product that increases the partners' commitment to the union.

In contrast to this line of reasoning, several explanations suggest that children may decrease parental satisfaction and thus destabilize marriages and encourage divorce (Twenge et al. 2003). For instance, the role conflict model explains how the reorganization of social roles toward the traditional family pattern when children are born may lead to marital dissatisfaction. The parental role adds to other roles, such as professional roles, which create tensions and conflicts within couples. In addition, the restriction of freedom model suggests that the presence of children in the household limits the freedom of parents, thereby increasing dissatisfaction, especially among mothers of young children (Twenge et al. 2003), given the ideology of intensive motherhood (Hays 1996). Lastly, the financial cost model suggests that since raising children is expensive, this adds financial pressure on the couple, increasing the likelihood of divorce (Twenge et al. 2003).

Another theoretical question is whether the relationship between children and divorce changes as the number of children increases. Due to the selection process and depending on the normative number of children, couples who have few children might have higher risks of divorce than both childless couples and couples with more children (Jalovaara 2013). Moreover, in keeping with the financial stress and role conflict models (Tweng et al. 2003), a large number of children could place more financial stress upon parents and generate greater role conflicts. In a different light, more children means that the couple have already passed the selection stage of one child (Jalovaara 2013), suggesting that marriages with many children would be more stable.

In sum, theoretically, children could be stabilizing or destabilizing mechanisms of marriage, and the pattern that emerges might be influenced by the number of children. It is of great interest to examine these opposing theoretical arguments in the Israeli context, given the centrality of having (many) children, together with the high cost of living and the relatively high percentage of mothers in the labor force (Stier 2010).

Empirical evidence is mixed regarding the direction of the effect of the number of children on divorce (Hart et al. 2017; Lyngstad and Jalovaara 2010; Svarer and Verner 2008). In the United States, the first child lowered the likelihood of divorce compared to childless women, whereas subsequent children had the opposite effect (Lillard and Waite 1993). In Denmark, too, additional births increased the likelihood of divorce (Svarer and Verner 2008). Similarly, Murphy (1985) found that couples in Britain with four or more children face significantly higher divorce risks. Other studies have concluded that additional children reduce the likelihood of divorce in Italy and Spain (Coppola and Di Cesare 2008; Vignoli and Ferro 2009) and in Russia (Chiappori et al. 2016). A study comparing marriage and cohabitation in Finland (Jalovaara 2013) also found a non-linear effect: having more than one child lowered separation rates compared to having no children, while having a
single older child modestly increased the risk of marital separation. This non-linear effect may be related to selection, since given the two-child norm in Finland, couples who have little trust in the continuity of their marriage are less likely to have a second child (Jalovaara 2013).

Findings also suggest that the ages of the children are an essential predictor of divorce, as people are reluctant to separate when they have young children. The likelihood of divorce has been found to be lowest when children are young and to rise as they age, although findings vary somewhat from country to country (Andersson 1997; Bernardi and Martínez-Pastor 2011; Hart et al. 2017; Jalovaara 2001; Kalmijn and Poortman 2006; Todesco 2011; Twenge et al. 2003; Vignoli and Ferro 2009).

### 6.4 Relations Between Socioeconomic Position, Ethnicity, Children and Divorce

In addition to examining relations between several aspects of children and divorce in the general population, it is important to take a closer look at how these relations might vary across ethnic and socioeconomic hierarchies. This question is related to an open theoretical debate regarding the relation between divorce and inequality (Härkönen et al. 2017). Focusing on the ways children affect divorce, two main theoretical directions can be suggested.

First, McLanahan (2004) argues that the family changes associated with the second demographic transition (such as decline and delays in fertility and marriages, and an increase in divorce) have different implications for children, depending on the socioeconomic status of the mother. That is, for children born to mothers with a college education, the changes in family behavior are associated with gains in parental resources, while for children born to less educated mothers, the changes are associated with a loss of resources. McLanahan conceptualized this pattern as the diverging destinies thesis. This thesis gains support in recent studies of relations between household socioeconomic status (or women's education) and divorce, as in some countries, including Israel, the higher the socioeconomic position, the lower the risks of divorce (e.g., Härkönen and Dronkers 2006; Kaplan and Herbst 2015; Matysiak et al. 2014). One explanation for this pattern is that couples with fewer financial resources suffer more stress in their relationship, resulting from economic pressures (Jalovaara 2003; Oppenheimer 1997). Based on the diverging destinies thesis, we can expect children to have a destabilizing effect on divorce among the lower socioeconomic group.

The second theoretical direction might be termed the heterogeneity thesis (Amato and Antony 2014; Bernardi and Boertien 2016, 2017; Erman and Härkönen 2017; Härkönen et al. 2017). This approach claims that "the socio-economic differences in family instability are less important in affecting inter-generational inequality than often thought" (Härkönen et al. 2017, 179). Accordingly, this stems from two
different social processes - one related to class or socioeconomics (Bernardi and Boertien 2016, 2017) and the other to ethnicity (Erman and Härkönen 2017). Here, we focus on how children affect divorce. Based on this hypothesis, then, the destabilizing effect of children might be stronger among more affluent class groups. Moreover, in ethnic groups in which divorce is less common, and where women are more economically dependent on their spouses, children might become a stabilizing mechanism.

With regard to Israeli society, earnings inequality is one of the highest among OECD countries (Rosenhek and Shalev 2013), as is the poverty rate of children (Endeweld et al. 2018); and ethnicity is related to economic and employment status (Swirski et al. 2017). Moreover, there are differences between Israeli-Jews and Israeli-Palestinians, not only regarding fertility and family patterns (SabbahKarkaby and Stier 2017), but also because the economic dependence of Palestinian women on their husbands is higher than that of Jewish women, as the former's employment rate is about half that of the latter (Stier and Herzberg 2013). Under these conditions, responsibility for the children might prevent Palestinian women from breaking up the marital relationship despite the strains. Therefore, the Israeli context is an excellent case for examining the conflicting theses regarding the ways divorce relates to inequality.

Only a handful of studies have examined variations in the relation between children and divorce across ethnic or socioeconomic groups. For instance, a study in Britain found that couples with children are at a substantially higher risk of divorce than similar childless couples, but the destabilizing effect of children is most pronounced for low-income households (Chan and Halpin 2002). Chan and Halpin (2008) also found divorce to be associated with premarital birth, and premarital birth to be strongly associated with low educational attainment. They found that those with less education are more likely to divorce than university graduates. Moreover, they are much more likely to have premarital births, which means that their children are more likely to have a destabilizing effect on the marriage. These results clearly echo some of the concerns for the "diverging destinies" of US children (McLanahan 2004; McLanahan and Jacobsen 2014).

### 6.5 Data and Methods

The study used a unique dataset created specifically for this research. This dataset merged administrative data from the tax authorities, including information about employment income and pensions, with the National Insurance Institute (NII) database, which includes sociodemographic information (e.g., marital status, number of children, age of children), as well as information about social benefits (e.g., disability benefits).

The administrative data are for all Israeli women who married in 2003. We took a random sample of $25 \%$ of these cases and followed them until 2015. From the year of marriage (2003), we created person-year files, to which each woman contributed
an observation for every year she was married and living in the country ${ }^{2}$ (i.e., until one year after she divorced or until 2015). Our sample totals 20,473 women, yielding 127,725 records for all years covered.

Using this dataset accorded three major advantages. Firstly, as it covers 25\% of the entire 2003 marriage cohort, our data include a very large number of cases that fit our research questions, aimed at comparing the effect of children on divorce across ethnic and income levels, given that divorce rates in Israel are relatively low. Secondly, the data provide longitudinal panel information on our main research variables, namely age of children, number of children, household income level and marital status. Thirdly, in contrast to cross-sectional data, our micro-level panel data enabled us to compare the effect of a time-varying variable, such as number of children, on an event, such as divorce.

The dependent variable is the likelihood of each woman to divorce at time $t$, provided she was previously married (divorced $=1$; married $=0$ ). ${ }^{3}$ During the period of study, $8 \%$ of the women in our sample reported divorcing.

We used two time-varying measures to assess the effect of children on likelihood of divorce. The first is a variable measuring whether the women has children up to age three (coded " 1 ") or not (coded " 0 ") in the household. The second is a measure of the number of children, divided into six groups: no children (the reference group), one child, two children, three children, four children and five or more (due to the small number of families with more than three children in our relatively young population, some models include only four categories: no children, one child, two children and three or more).

To estimate the effect of socioeconomic position on divorce, we used a measure of the couple's annual co-earnings from work. ${ }^{4}$ Based on that, we divided the sample into six groups: no earnings (W0), ${ }^{5}$ low earnings (W1: 50,000 NIS per year, the equivalent of one minimum monthly wage); low-middle earnings (W2: 50,000100,000 NIS per year); middle earnings (W3: 100,000-150,000 NIS per year - the reference category); middle-high earnings (W4: 150,000-300,000 NIS per year);

[^21]and high earnings (W5: over 300,000 NIS per year). ${ }^{6}$ In the partial regressions (by income groups), we used only four (rather than six) earnings levels: W0, W1, $\mathrm{W} 2+\mathrm{W} 3$, and $\mathrm{W} 4+\mathrm{W} 5$, reflecting no earnings, low earnings, middle earnings, and high earnings, respectively.

To measure ethnicity, we used a dummy variable that indicates whether ( $=1$ ) the woman is an Israeli-Palestinian $(0=$ Jewish $)$.

We also controlled for variables that might affect the likelihood of divorce, consistent with studies in Israel and elsewhere (Cooke et al. 2013; Kaplan and Herbst 2015; Lewin 2006; Lyngstad and Jalovaara 2010; Raz-Yurovich 2012): marriage duration (in years); marriage duration squared; average number of working months; whether the woman resides in the periphery or in central Israel; age; whether the woman had been previously married; and a set of dummy variables that indicate whether $(=1)$ or not $(=0)$ the individual is an ultra-Orthodox Jew or immigrated to Israel in 1990 or afterwards. All independent variables were measured at $t-1$. Descriptive statistics for all variables are presented in Appendix A.

Fertility and divorce should be examined as two related processes, as fertility (number of children in our data) both affects the tendency to divorce and is affected by it. In order to overcome this loop of causality between the independent (number of children) and dependent (divorce) variables of a model, we estimated the effect of children on divorce by implementing a panel logit model with a dichotomous ( $0 / 1$ ) dependent variable (divorced). The main regressors are: children up to age 3 and number of children. In order to examine whether the effect of children on divorce varies by ethnic group and income level, we estimated the regression model once for the total sample and then for the two ethnic groups (Palestinians and Jews), as well as for four groups of household income levels.

To check the robustness of this panel logit regression model, we applied two alternative models. The first used number of children as a continuous variable and number of children squared, to examine non-linear effects. We refer to this model in the Findings section (see also Appendix B). The second alternative was an IV model for panel data (where the first stage is OLS and the second stage is probit), under the assumption that one of the regressors - number of children - is endogenous, as couples who are less prone to split up are likely to have more children. Therefore, one might erroneously conclude that children stabilize marriage (Svarer and Verner 2008).

For this second model we defined two variables as (dummy) instruments: second marriage (assuming the number of children will be lower) and receipt of disability pension (assuming that people with disabilities will tend to have fewer children). Since these instruments are weak, we preferred to use the simple model outlined earlier. In the Findings section, we report the findings of this alternative model as well, as a robustness check.
${ }^{6}$ The average earnings from work per household in Israel in these years was 94,800 NIS, which is roughly equivalent to $\$ 27,086$ ( 3.5 NIS $=\$ 1$ ).

### 6.6 Findings

Table 6.1 presents the results of the panel logit regression model. We start with our first research question, focusing on the coefficients of children aged 0-3 in the household and the number of children in the total sample (column 1). As can be seen, having young children (up to age 3) in the household decreases the likelihood of divorce. When the dummies of the number of children, in the sample as a whole, are compared to the dummy of couples without children (the reference category), all coefficients are positive and the pattern seems to be non-linear. One child increases the risk of divorce compared to childless couples, as do two and three children, but these risks decrease gradually as the number of children rises, up to three children. There is no statistically significant difference between couples with four children and those without children, but couples with five or more children reversed the chances of divorce, raising it again, perhaps because of the economic difficulties that this situation creates.

Regarding ethnicity, as expected, we found that Israeli-Palestinians had lower risks of divorce than Israeli-Jews. With regard to the effects of co-earnings, we found that couples with no income from work (W0), couples with low earnings (W1) and those with low-middle earnings (W2) tended to divorce more than couples with middle earnings (W3, the reference category). Having middle-high earnings (W4) decreased the odds of divorce compared to middle earnings, and very high earnings (W5) was in the same direction (i.e., negative), but non-significant. In other words, there is a clear class effect of the tendency to divorce. Being ultra-Orthodox Jews or immigrants ${ }^{7}$ decreased divorce risks, while number of annual working months, age and previous divorce increased it. As expected, marriage duration had a non-linear effect on divorce in the total sample. ${ }^{8}$

With regard to the second research question, i.e., whether relations between children and divorce vary by ethnicity and household income level, findings of the partial regressions are presented in columns $2-7$ of Table 6.1. We start with ethnicity (columns 2 and 3). While young children reduce divorce risks among both groups, the number of children has a differential effect. The results among Israeli-Jews (comprising about $80 \%$ of the sample) resemble those of the total sample, that is, there is a positive, but non-linear, relation of children to divorce. However, among Israeli-Palestinians, there is no significant difference between families without children and those having up to two children. The third and fourth child, however, reduce the chances of divorce compared to a family without children, unlike the (positive) pattern found among Jews.

In an alternative model (see Appendix B), we estimated the effects of number of children by a continuous variable and number of children squared (to look for non-linear effects). Running this model separately for each group, we found the

[^22]Table 6.1 Results (odds ratios) from regression, women, 2003-2015 (dependent variable: divorced)

| Variable | Total sample | IsraeliJews | Israeli- <br> Palestinians | No earnings (W0) | Yearly earnings up to 50,000 NIS (W1) | Yearly earnings $50,000-$ 150,000 NIS (W2 + W3) | Yearly earnings 150,000 NIS+ (W4 + W5) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Children |  |  |  |  |  |  |  |
| Child up to <br> 3 years $(1=\text { yes })$ | 0.18*** | 0.18*** | 0.23*** | $0.23 * * *$ | 0.21*** | 0.17*** | 0.08*** |
| Number of children (base $=$ no children) |  |  |  |  |  |  |  |
| 1 child | 2.64*** | 3.01*** | 0.86 | 1.03 | 1.84*** | 2.62*** | 8.80*** |
| 2 children | 1.89*** | 2.21*** | 0.6 | 1.01 | 1.19 | 1.52** | 5.23*** |
| 3 children | 1.51*** | 1.86*** | 0.42** |  |  |  |  |
| 4 children | 1.25 | 1.51 | 0.39* |  |  |  |  |
| $5+$ children | 1.96** | 1.99* | 1.02 |  |  |  |  |
| $3+$ children |  |  |  | 1.00 | 1.20 | 0.75 | 1.92 |
| Ethnicity |  |  |  |  |  |  |  |
| IsraeliPalestinians $(1=y e s)$ | 0.75*** |  |  | 0.47*** | 0.59*** | 1.15 | 1.70 |

Annual household earnings (base: W3 middle earnings, 100,000-150,000 NIS)

| W0 (no <br> earnings) | $3.39 * * *$ | $3.56 * * *$ | $2.93 * * *$ |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| W1 (low <br> earnings, <br> up to <br> 50,000 <br> NIS) | $2.17 * * *$ | $2.18 * * *$ | 1.68 |  |  |  |  |
| W2 <br> (low- <br> middle <br> earnings, <br> 50,000- <br> 100,000 <br> NIS) | $1.42 * * *$ | $1.41 * * *$ | 1.19 |  |  |  |  |
| W4 <br> (middle- <br> high <br> earnings, <br> 150,000- | $0.82 *$ | 0.83 | 0.94 |  |  |  |  |
| 300,000 <br> NIS) |  |  |  |  |  |  |  |
| W5 high | 0.88 | 0.90 | 0.79 |  |  |  |  |
| earnings |  |  |  |  |  |  |  |
| 300,000 |  |  |  |  |  |  |  |
| NIS+ |  |  |  |  |  |  |  |

(continued)

Table 6.1 (continued)


| Sociodemographic |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Marriage duration | 1.09** | $1.12 * * *$ | 0.92 | $1.55 * * *$ | $1.30 * * *$ | 1.06 | $0.48 * * *$ |
| Marriage duration squared | $0.99 * * *$ | 0.98*** | 1.00 | 0.96*** | 0.97*** | $0.99 * * *$ | $1.03 * * *$ |
| Immigrant $(1=\text { yes })$ | 0.67*** | 0.68*** | (omitted) | 0.76 | 0.60*** | 0.78* | 1.09 |
| Ultraorthodox (1 = yes) | $0.61 * * *$ | 0.60*** | (omitted) | 0.64 | 0.42*** | 1.00 | 1.29 |
| Number of working months | $1.10 * * *$ | 1.10*** | $1.12 * * *$ | (omitted) | 1.06*** | $1.14 * * *$ | $1.13 * * *$ |
| Age | 1.01*** | 1.01** | 1.06*** | 0.97*** | 1.00 | 1.03*** | $1.09 * * *$ |
| Lives in periphery (1 = yes) | 1.05 | 1.07 | 0.87 | (omitted) | 1.25** | 0.84 | 0.93 |
| Divorced in past (1 = yes) | 1.26** | 1.25* | 1.20 | 2.66*** | $1.54 * * *$ | 1.05 | 0.23*** |
| Constant | 0.00 *** | 0.00*** | 0.00*** | 0.02*** | 0.01*** | 0.00 *** | $0.00 * * *$ |
| /lnsig2u | $2.34 * * *$ | 2.23*** | $3.46 * * *$ | 1.88* | 1.29 | $2.03 * * *$ | $3.85 * * *$ |


| Statistics |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $N$ | 127,725 | 104,280 | 23,416 | 23,385 | 34,901 | 44,254 | 25,185 |
| $d f \_m$ | 20 | 19 | 17 | 11 | 13 | 13 | 13 |
| chi $^{2}$ | 989.71 | 843.55 | 175.69 | 165.64 | 358.96 | 353.74 | 208.91 |

$* p<.05, * * p<.01, * * * p<.001$
effects to be non-linear in both, but in opposite directions: while for Israeli-Jews, the linear term is positive and the squared term is negative, for Israeli-Palestinians, the linear term is negative and the squared term is positive. Taken together, the models indicate that the number of children increases divorce risks among Israeli-Jews, though this effect decreases in large families, while children stabilize the marriage among Israeli-Palestinians, but the stabilizing effect decreases in large families.

Interestingly, annual earnings also affect divorce differently in these two ethnic groups (Table 6.1). The pattern among Israeli-Jews resembles the one in the total sample, with divorce risks higher among couples with no earnings or low earnings. Among Palestinians, in contrast, the only difference found is that families without employment income tend to divorce more than the middle-earnings group (W3). On
the whole, differences between income levels in the Israeli-Palestinian population are lower than for Jews, possibly because of a lower tendency to divorce and lower heterogeneity in earnings among the Palestinians (who, on average, earn much less than Israeli-Jews) (Sabbah-Karkaby and Stier 2017).

Turning to a comparison across couple's earnings, columns 4-7 present the results of the partial regression in four earnings levels (rather than six levels, due to the small number of cases): W0, W1, W2 + W3, and W4 + W5, reflecting no earnings, low earnings, middle earnings, and high earnings, respectively. We also combined couples with three or more children due to the small number of cases of couples with four or five children (this is a relatively young population that married in 2003). First, as was found for both ethnic groups, children up to age 3 decreased the risks of divorce across all household income levels. However, the number of children seems to operate differently depending on income level. Among couples with no earnings from work (W0), i.e., at a low economic level, where divorce risks are high, the number of children is not significantly associated with divorce. Among households with low earnings (W1), one child increases the odds of divorce compared to couples with no children, but beyond that, there were no significant differences between couples with a higher number of children in their risks of divorce (possibly due to the small number of cases). In households with middle earnings (W2 + W3), one child and two children increase the risks of divorce, compared to childless couples, while the contribution of three and more children to divorce risks does not differ significantly from that of no children. Lastly, among couples with high earnings (W4 + W5), one child greatly increases the odds of divorce compared to no children, as do two children (albeit to a lower extent), and having three children or more continues the downward trend in odds of divorce, although not significantly.

A comparison of these models with the IV model (not shown, results can be obtain from the authors) reveals similar trends in the explanatory variables, although the IV model yields a smaller number of significant coefficients. This is so for both child variables: young children at home (decreasing divorce tendencies in both cases) and the number of children. On the whole, all models found an increase in income level to reduce the chances of divorce (when coefficients were significant).

### 6.7 Discussion

The study examined how young children at home and number of children might be related to marriage stability in a pronatalist society. While most studies on the effect of children on divorce have focused on countries with fertility levels below or near the replacement level, we explored whether the stabilizing effect of children on marriage holds in a society with the highest fertility rate among OECD countries (OECD 2017). Given the relatively high cost of living in Israel (Rosenhek and Shalev 2013), low state support for families with children (Bendelac 2017; Renan Barzilay 2012) and differences in fertility and divorce rates between Jews and Palestinians, the main ethnic division in Israeli society, we looked at these relations
comparing the two ethnic groups as well as households with different earning levels. On the whole, we found that the effect of children on the likelihood to divorce is heterogeneous and depends upon the specific aspect of children examined, as well as the ethnic and income group focused upon.

Regarding ethnicity, after controlling for many predictors of divorce in the model, we found major differences between Israeli-Jews and Israeli-Palestinians in a number of respects. First, as expected from previous research (Kaplan and Herbst 2015), divorce risks are higher among the Jewish population. Second, children are related to divorce in distinct patterns. Children (especially the third and fourth child) in Israeli-Palestinian families, to which the pronatalist policy is less directed, stabilized the marriage. For Israeli-Jews, the opposite is true: children tended to destabilize the marriage. Compared to households without children, a household with one, two, three and five (or more) children increased the risk of divorce, though with decreasing effects from the first to the third child and a change in trend once there were five children. On the theoretical level, this non-linear effect can be explained in keeping with the financial stress and role conflict models (Tweng et al. 2003). It is possible that the hardships of having a second and third child are similar, because however the couple manages with two children, they can also manage with three (and perhaps four) children. Once they pass a certain threshold (a fourth child), however, the risk apparently gets considerably greater.

The different patterns of the effect of number of children on divorce might be explained by differences between these ethnic groups regarding level of conservatism, selection into different fertility patterns (higher among Israeli-Palestinians), the commonality of divorce and normative breadwinner models. As opposed to IsraeliPalestinians, most Israeli-Jewish couples are dual earners working long hours, even when children are young (Mandel and Birgier 2016; Stier 2010). This places a high burden on the shoulders of young Jewish parents, especially when there are many children, in accordance with the financial cost and role conflict models (Svarer and Verner 2008; Twenge et al. 2003). The situation is aggravated by Israel's pronatalist policy, which encourages Jewish women to have many children, yet fails to support the family in raising them (Renan Barzilay 2012), especially if the couple have employment difficulties. ${ }^{9}$ Combined with the country's relatively high cost of living (Rosenhek and Shalev 2013), families with children thus become a locus of multidimensional pressures. However, this seems to work differently among IsraeliPalestinians. It is possible that, in this case, an increase in the number of children raises the dependency of the wife on her husband, thereby reducing the odds of divorce - a dependency which is also related to Palestinian women's low labor force participation (Sabbah-Karkaby and Stier 2017). Moreover, following the logic of Erman and Härkönen (2017), where divorce is less common, children may strengthen the marital bond. If this group also has a low socioeconomic status, as is the case of Israeli-Palestinians, the relation between children and divorce might decrease economic inequality while at the same time reproducing gender inequality.

[^23]We also obtained heterogeneous findings when looking more closely at the relations between children and divorce across different levels of household earnings. As a whole, for those couples with low income levels (overlapping with the IsraeliPalestinian population), who are more likely to divorce than couples with high earnings, the number of children was not found to be significantly related to divorce. That is, families living in poverty are more likely to divorce than those earning high wages, but the number of children does not play a significant role in explaining divorce. On the other hand, among those with average and high incomes (overlapping more with the Jewish population), children increase the chances of divorce, albeit with a decreasing effect from the first child to each additional child.

Our findings are therefore mixed with regard to the broader question of how children and divorce are related to socioeconomic inequality. On the one hand, the results support the diverging destinies thesis, showing a clear class effect of earnings on divorce. On the other hand, taking the number of children into account, children were found to be destabilizing only among the more affluent groups, which somewhat contradicts the diverging destinies thesis and supports the heterogeneity thesis instead. In that sense, having children may weaken social inequality. Of course, more research and longitudinal studies are needed to test this interpretation.

It should be noted that, across all income levels and among both ethnic groups, young children at home increase marriage stability, supporting findings in earlier studies (Andersson 1997; Becker et al. 1977; Chiappori et al. 2016; Hart et al. 2017; Kalmijn and Poortman 2006). It seems, then, that in Israeli society, young children constitute "union-specific capital" (Becker et al. 1977) and hence reduce the likelihood of divorce for all groups, while the extent to which the number of children stabilizes the marriage depends on the couple's ethnic and income group.

The study is not without limitations. Our administrative data did not include information on total income (beside salaries). Future research should examine the relation between children, income and divorce using additional income measures. Furthermore, our dataset unfortunately lacked a measure of religiosity (besides belonging to the ultra-Orthodox Jewish population). Given the importance of religiosity in explaining family patterns among both Israeli-Palestinians and Israeli-Jews (Okun 2013), this could be a fruitful direction in future studies. It would also be helpful to run separate analyses for ultra-Orthodox Jews, due to their high fertility and poverty rates. As mentioned, this was not possible in light of the small number of cases in our dataset. Additional research might also benefit from taking a comparative cross-country perspective, combining family policy research (Saxonberg 2013) with marital and divorce behaviors (Cooke et al. 2013; Härkönen and Dronkers 2006; Kaplan and Stier 2017).

Notwithstanding the above limitations, the findings of the current research point to the importance of examining relations between children and divorce across groups in the society, instead of assuming a linear and consistent trend. In that sense, the answer to the question of whether the more is really the merrier might depend, at least partly, on the ethnic group to which the couple belongs, as well as how much money they earn.

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## Appendices

## Appendix A: Descriptive Statistics

| Variable | Frequency/average ${ }^{\mathrm{a}}$ |
| :--- | :--- |
| Child up to 3 years | $62.31 \%$ |
| Number of children |  |
| No children | $20.95 \%$ |
| 1 child | $22.67 \%$ |
| 2 children | $29.22 \%$ |
| 3 children | $17.23 \%$ |
| 4 children | $6.37 \%$ |
| 5+ children | $3.56 \%$ |
| Israeli-Palestinian (1 = yes) | $18.36 \%$ |
| Annual household earnings |  |
| W0 (no earnings) | $18.31 \%$ |
| W1 (low earnings, up to 50,000 NIS) | $27.33 \%$ |
| W2 (low-middle earnings, 50,000-100,000 NIS) | $22.10 \%$ |
| W3 (middle earnings, 100,000-150,000 NIS) | $12.55 \%$ |
| W4 (middle-high earnings, 150,000-300,000 NIS) | $14.10 \%$ |
| W5 (high earnings, 300,000 NIS or more) | $5.62 \%$ |
| Annual earnings (in NIS) | 93,064 |
| Marriage duration (years) | 6.1 |
| Immigrant (1 = yes) | $17.55 \%$ |
| Ultra-orthodox (1 = yes) | $10.56 \%$ |
| Number of working months | 7.5 |
| Age | 31.9 |
| Lives in periphery (1 = yes) | $17.9 \%$ |
| Divorced in past | $7.2 \%$ |
| Number of cases | 127,725 |
| Avag |  |

${ }^{\text {a }}$ Averages relate to all observations of each woman

## Appendix B: Results (Odds Ratios) from Regression, Women, 2003-2015 (Dependent Variable: Divorced)

| Variable | Total sample | IsraeliJews | Israeli- <br> Palestinians | No earnings (W0) | Yearly earnings up to 50,000 NIS (W1) | Yearly earnings $50,000-$ 150,000 NIS $(W 2+W 3)$ | Yearly earnings above 150,000 <br> NIS <br> (W4 + W5) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Children |  |  |  |  |  |  |  |
| Child up to 3 years (1 = yes) | 0.21*** | 0.20 *** | 0.25*** | 0.23*** | 0.24*** | $0.19 * * *$ | 0.11*** |
| Number of children | 1.67*** | $2.03 * * *$ | 0.59*** | 0.97 | 1.11 | $2.50 * * *$ | 12.63*** |
| Number of children squared | 0.89*** | 0.85*** | 1.08** | 1.01 | 0.98 | $0.72 * * *$ | 0.44*** |
| Ethnicity |  |  |  |  |  |  |  |
| Israeli- <br> Palestinians $(1=\text { yes })$ | 0.72*** |  |  | 0.47*** | 0.56*** | 1.13 | 1.76 |

Annual household earnings (base: W3 middle earnings, 100,000-150,000 NIS)

| W0 (no <br> earnings) | $3.51 * * *$ | $3.64 * * *$ | $2.96 * * *$ |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| W1 (low <br> earnings, up <br> to 50,000 <br> NIS) | $2.24 * * *$ | $2.26 * * *$ | 1.67 |  |  |  |  |
| W2 <br> (low-middle <br> earnings, <br> 50,000- <br> 100,000 <br> NIS) | $1.44 * * *$ | $1.43 * * *$ | 1.19 |  |  |  |  |
| W4 <br> (middle-high <br> earnings, <br> 150,000- <br> 300,000 <br> NIS) | $0.83 *$ | 0.84 | 0.94 |  |  |  |  |
| W5 (high <br> earnings, <br> 300,000 <br> NIS+) | 0.88 | 0.89 | 0.77 |  |  |  |  |


| Variable | Total sample | IsraeliJews | Israeli- <br> Palestinians | No earnings (W0) | Yearly earnings up to 50,000 NIS (W1) | Yearly earnings $50,000-$ 150,000 NIS (W2 + W3) | $\begin{aligned} & \text { Yearly } \\ & \text { earnings } \\ & \text { above } \\ & 150,000 \\ & \text { NIS } \\ & \text { (W4 + W5) } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sociodemographic |  |  |  |  |  |  |  |
| Marriage duration | 1.12*** | 1.15*** | 0.94 | 1.56*** | 1.34*** | 1.08 | $0.49 * * *$ |
| Marriage duration squared | 0.98*** | 0.98*** | 1 | 0.96*** | 0.97*** | 0.99*** | 1.03*** |
| Immigrant $(1=\text { yes })$ | 0.71*** | 0.72*** |  | 0.76 | 0.62*** | 0.82 | 1.15 |
| Ultraorthodox ( $1=$ yes) | 0.60*** | 0.60*** |  | 0.64* | 0.40*** | 1.04 | 1.42 |
| Number of working months | 1.10 *** | 1.10*** | 1.12*** |  | 1.06*** | 1.14*** | $1.13 * * *$ |
| Age | 1.01*** | 1.01* | 1.06*** | 0.96*** | 1.00 | 1.03*** | 1.09*** |
| Lives in periphery (1 = yes) | 1.05 | 1.07 | 0.86 |  | 1.26** | 0.84 | 0.94 |
| Divorced in past | 1.32** | 1.30** | 1.21 | 2.68 *** | 1.58*** | 1.09 | 0.24*** |
| Constant | $0.00 * * *$ | $0.00 * * *$ | 0.00 *** | $0.02 * * *$ | 0.01*** | 0.00*** | 0.00*** |
| Statistics |  |  |  |  |  |  |  |
| $N$ | 127,725 | 104,280 | 23,416 | 23,385 | 34,901 | 44,254 | 25,185 |
| df_m | 17 | 16 | 14 | 10 | 12 | 12 | 12 |
| chi ${ }^{2}$ | 954.76 | 798.07 | 180.99 | 166.31 | 352.75 | 328.73 | 207.45 |

$* p<.05, * * p<.01, * * * p<.001$

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Consequences of Divorce for Ex-partners

# Chapter 7 <br> Gray Divorce and Social and Emotional Loneliness 

Robin S. Högnäs


#### Abstract

Research consistently shows an association between marriage and divorce and long-term health, including mental health outcomes linked to loneliness and depression. And, recent evidence suggests that divorce at midlife and older, or so-called "gray divorce" has increased while divorce at younger ages has decreased. Using data from the Netherlands Kinship Panel Study (NKPS), this chapter explores the association between marital status and social and emotional loneliness, emphasizing gray divorce. Contrary to expectations, compared to those continuously married (e.g., never divorced), gray divorce is not associated significantly with social loneliness, but divorce prior to midlife is. On the other hand, those who divorced prior to and after midlife were emotionally lonelier than those continuously married, regardless of birth cohort and remarriage. In addition, compared to their married counterparts of the same age, there was no association between divorce and social loneliness for women, but there was for men who divorced both before and after midlife. Among only the divorced group, gray divorce (versus younger divorce) was not associated significantly with social nor emotional loneliness for women or men. Also among only those who divorced, gray divorced men (versus younger divorced men) were less emotionally lonely, but this finding was not statistically significant.


Keywords Divorce • Remarriage • Marriage • Social loneliness • Emotional loneliness

[^24]
### 7.1 Introduction

Divorce in Western countries has increased substantially over the past half century and remains at or above $30 \%$ of all marriages ending in divorce, including in the Netherlands. Recent research in the United States, however, suggests that there have been significant within-group changes in divorce. That is, the risk of divorce among young, teenage couples has decreased significantly. On the other hand, the risk of divorce among older couples increased. The (U.S.) divorce rate among adults age 50 or older doubled between 1990 and 2010, and $25 \%$ of all divorces were among those age 50 and older (Brown and Lin 2012; Kennedy and Ruggles 2014). No similar reports (to the author's knowledge) have been published for The Netherlands; figures from Statistics Netherlands (author's calculations, not shown) suggest that divorces among those age 50 and older have increased since the latter part of the twentieth and earlier part of the twenty-first centuries. While there are a few studies examining the consequences of divorce at older ages, overall, the consequences of gray divorce are not well-understood.

Research consistently shows that there are benefits to marriage, both in terms of long-term physical health and long-term mental health, especially for men (e.g., Waite and Gallagher 2002). The potential social and emotional (negative) consequences of being a divorcee versus married may differ on a number of characteristics, including the age of divorcees and whether they subsequently remarry. Indeed, those who divorce earlier rather than later in the life course may be more likely to remarry or cohabit with a new partner (see Lewis and Kreider 2015). They may also have more opportunities to rebuild their social lives with new partners, and thus be less likely to suffer from loneliness. Divorce later in life, or what is often referred to as "gray divorce," may place older adults at a greater risk of loneliness compared to those who are married, regardless of first or higher order marriages. On the other hand, similar to younger divorcees, those who end marriages at midlife and later may do so for reasons that improve their quality of life and reduce the chances of loneliness.

Few studies have considered the potential social and emotional consequences of divorce across different age groups; literature exploring gray divorce is limited, and these studies often do not include younger divorcees (prior to midlife) (see Brown and Lin 2012). This chapter extends the literature by using data from the Netherlands Kinship Panel Study to explore the association between divorce both before and after age 50 (consistent with Brown and Lin 2012) and social and emotional loneliness. Specifically, omissions in the extant literature are addressed by exploring the following primary research questions. To what extent does the association between divorce and loneliness differ for younger and older divorcees compared to one-time, continuous marriages? Do remarriages among different age groups protect against social and emotional loneliness? To what extent does health and employment attenuate the association between divorce and loneliness?

### 7.2 Background

### 7.2.1 Loneliness

Scholars have long been interested in loneliness, both as a predictor of health and as an outcome of the quantity and quality of social relationships (e.g., see CohenMansfield et al. 2016). Over many years, numerous theories of loneliness have been posited, followed by hundreds of empirical studies seeking to understand the causes and consequences of loneliness. Distinct from the concept of social isolation (i.e., an absence of social relationships), loneliness is defined as "...a situation experienced by the individual as one where there is an unpleasant or inadmissible lack of (quality of) certain relationships. This includes situations, in which the number of existing relationships is smaller than is considered desirable or admissible... [and] the intimacy one wishes for has not been realized" (de Jong Gierveld 1987: 120; de Jong Gierveld et al. 2006). Thus, loneliness is the feeling that the social relationships in one's life are either lacking, undesirable, unfulfilling, or they do not meet one's expectations of quality.

To capture the more distinct dimensions of loneliness, Weiss (1973) posited that the characteristics of one's social relationships determine the extent to which two distinct types of loneliness, social and emotional, emerge. Social loneliness may result from a mismatch between one's expectations of -or personal standards forthe quality of their ties and the composition and/or size of their personal network. Similarly, emotional loneliness may result when the intimacy one expects from their social relationships is lacking (see de Jong Gierveld 1987 and de Jong Gierveld 1998 for more discussion). Thus, while similar in terms of unmet expectations, social and emotional loneliness capture two distinct unmet needs-social has to do with ties to others and emotional loneliness has to do with intimacy. Intuitively, the extent to which one feels social and/or emotional loneliness is likely associated strongly with the strength of intimate partner relationships (e.g., Weiss 1973; Dykstra and de Jong Gierveld 2004). In terms of social and emotional loneliness following divorce, on average, we would expect both to increase; however, the patterns may differ for women and men as women tend to seek emotional intimacy elsewhere in their supportive networks (e.g., Dykstra and de Jong Gierveld 2004).

### 7.2.2 Divorce and Loneliness

Regardless of relationship quality, an intimate partner is lost following divorce. While an intimate partner may be the most important social loss, divorce also can result in a loss of shared relationships (e.g., Gerstel 1987), particularly among those married for many years. On the one hand, married couples tend to invest heavily in their couple relationships, and these investments may come at the expense of time with other network members (Kalmijn 2003). Even so, couples may be fulfilled
by the social engagement accompanying their marriage, for example, more time with extended family or friendships shared between spouses. The formation of these new couple-centered social networks (Kalmijn and Broese van Groenou 2005) potentially reduces the risk of social loneliness. Moreover, if couple-centered networks include close friendships or relationships with in-laws, these bonds may also reduce the risk of emotional loneliness. On the other hand, if one neglects their individual friends and family to invest in in-laws or otherwise newly formed couplecentered networks, they may be at risk of social and emotional loneliness if they long for time with old friends and immediate family. In these cases, social loneliness may be prevalent among those who have been married for many years (e.g., Dykstra and de Jong Gierveld 2004). Indeed, some research suggests that low quality of marriages in later life (between ages 64 and 92 ), in terms of social and emotional support (among other indicators), are associated with both social and emotional loneliness (de Jong Gierveld et al. 2009).

It is possible that the dissolution of low-quality intimate partnerships or marriages later in life results in not only a sense of relief, but also an increase in time with family or possibly even friends (e.g., Gerstel 1988; Albeck and Kaydar 2002; Kalmijn and Broese van Groenou 2005). Even so, research primarily shows that older versus younger adults are more likely to be socially isolated (Steptoe et al. 2013), suggesting that older adults may be more vulnerable to social loneliness if they would prefer to have more social contact. Although, it is also possible that older divorcees spend more time with their adult children and grandchildren, and thus suffer less from social and emotional loneliness. Indeed, research suggests that grandparent involvement in families has increased over time, and in many cases, grandparents coreside with their adult children and their families (e.g., Dunifon et al. 2014).

Even so, some research suggests that older adults who have ever divorced are socially and emotionally lonely compared to those who have had no changes in their marital history (i.e., in first marriage and never married), although the patterns differ for women and men (Dykstra and de Jong Gierveld 2004). It is possible that adult children are less readily available socially and emotionally outside of time shared with young children. Moreover, older adults may have less energy for social activities following a later in life divorce, particularly if they have health problems. Some evidence suggests that, health problems notwithstanding, participation in social activities and the formation of new relationships can be very difficult following a divorce (Kalmijn and Broese van Groenou 2005), so adults with health problems often face even greater social challenges (e.g., Steptoe et al. 2013).

Using longitudinal data from the late 1980s, Terhell et al. (2004) found that 50\% of men and women lost friendships in divorces, which were subsequently not replaced 12 years later (Terhell et al. 2004). Some participants gained friendships several years after their divorce, which suggests that some friendships that are lost in a divorce require time to regain or replace, whereas others are not replaced. Thus, the potential protection against social loneliness that friendship networks afford may take time. Conceivably, such a time lag results in divorcees feeling both emo-
tionally and socially lonely. This may be particularly true if older divorcees had shared contacts with their spouses. There is some evidence of this among older, divorced men who do not remarry or repartner (Gray et al. 2011).

While no studies (of which the author is aware) have examined explicitly the patterns of social and emotional loneliness among divorcees prior to midlife, intuitively, those who divorce earlier rather than later in the life course may be more likely to re-partner following a divorce (e.g., Cohen-Mansfield et al. 2016). Thus, younger divorcees may have a lower risk of social and emotional loneliness. Indeed, older divorcees may be less likely to remarry strictly due to the pool of single adults, as many in this age group will already be married (or remarried). Among older adults who do remarry, such new intimate partnerships may bring with them emotional and social fulfillment (e.g., Gray et al. 2011), particularly if adult children are amiable toward the new partnerships. On the other hand, those who divorce and remarry earlier in life (e.g., prior to midlife) may experience less emotional loneliness than their married counterparts, especially if they left an emotionally unfulfilling marriage (e.g., Amato and Hohmann-Marriott 2007). On the other hand, research suggests that couples who remarry suffer from stress (e.g., Sweeney 2010) that could place young children at risk of negative outcomes, such as performing poorly in school. Conflict associated with divorce and shared responsibility for children across households, along with the subsequent stress of navigating a new life with children from the older one, may mean that younger divorced and remarried adults feel socially lonelier than those who stay in their first marriages.

### 7.2.3 Gender Differences

Prior research suggests that there are notable differences in how intimate romantic partnerships affect the social and emotional lives of women and men. Overall, men and women benefit from marriage both in terms of health outcomes and financially (Waite and Gallagher 2002; Robles et al. 2014). Men also tend to benefit emotionally from marriage, but emotional security for women comes from other social ties (Dykstra and de Jong Gierveld 2004). Married women tend to invest more in social ties and keep closer social relationships with kin (e.g., Rosenthal 1985). Thus, when marriages dissolve, we might expect the divorce to increase emotional loneliness for men as they rely on their marriages as a primary source of this support. On the other hand, women may suffer less emotionally post-divorce if they draw on supportive networks external to their marriages. However, women who cultivate strong ties with their spouse's family, and lose those connections post-divorce, may be vulnerable to social loneliness.

Overall, compared to those who are continuously married, I expect divorcees and those in remarriages to have higher levels of social and emotional loneliness. I further expect the association to be stronger for divorcees age 50 and older. While knowledge about gray divorce is currently limited (but growing), the risk of social
isolation and loneliness increases with age (e.g., Steptoe et al. 2013). Thus, given the overall increased risk of loneliness, combined with a potential loss of support from spouses and/or their families following divorce, I expect that older divorcees may be particularly vulnerable socially. I further expect the association between gray divorce and emotional loneliness to be stronger for men than for women. Men in marriages tend to rely on women for emotional support, and thus may lose a primary source of it following divorce. Conversely, women tend to rely on other family members or friends, rather than their spouses, for emotional support and may experience lower levels of emotional loneliness following a divorce (e.g., Dykstra and de Jong Gierveld 2004). On the other hand, emotion loneliness may increase following divorce if supportive ties are lost in the divorce.

### 7.3 Methodology

### 7.3.1 Data

This chapter uses data from The Netherlands Kinship Panel Study (NKPS) to explore the extent to which divorce and remarriage among different age groups (versus marriage) is associated with social and emotional loneliness. Part of the Generations and Gender Programme, the NKPS is a prospective, longitudinal study of $N=9500$ individuals and their family members followed across 4 waves between 2000-2004 (Wave 1) and 2014 (Wave 4). This panel study is a collaboration between several Dutch universities and has been funded primarily by the Dutch National Research Foundation (NWO). The purpose of the study was to better understand solidarity in family relationships and family behavior over time. Data were collected using face-to-face interviews, which included both closed- and open-ended questions.

Data from the NKPS are suitable for the current study because they include measures about divorce, age of divorce, the De Jong Gierveld scales of social and emotional loneliness, and demographic characteristics. Attrition in Waves 3 and 4, however, was substantial. Thus, to avoid potentially biased estimates from high levels of attrition, and to retain a larger proportion of the sample in the analyses, this study used information from Waves 1 and 2 of the NKPS. Data were pooled over the two waves, and robust standard errors were used to adjust for multiple individual observations at two time points. In addition, to further retain more individuals in the sample, item missing (less than $30 \%$ for any given item) for covariates only were multiply imputed using the ICE command in Stata. Missing values were not imputed for marital status nor social and emotional loneliness. Finally, because the focus of the paper was divorce before and after midlife, the never married and widows/widowers were excluded. The resulting analytic sample size was $N=8505$ observations.

### 7.3.2 Independent Variables

Two primary independent variables were included in the analyses. First, drawing from information about age, divorces, and marital status, a constructed categorical variable of marital status which distinguishes between older and younger divorces and remarriages was included; where $1=$ continuously married; $2=$ remarried $\geq$ age 50; $3=$ remarried $<$ age 50; $4=$ divorced $\geq$ age 50; $5=$ divorced $<$ age 50. Importantly, those in the continuously married category have only ever been married or a registered cohabiting partner with their current partner; and those in both divorced categories had not remarried since their divorce. In analyses restricted to only those who have divorced, a dummy indicator is used, where $1=$ divorced $\geq$ age 50; $0=$ divorced $<$ age 50 .

### 7.3.3 Dependent Variables

Two dependent variables were included in the analyses, one of which captured social loneliness and the other captured emotional loneliness. These measures were adapted in the NKPS from De Jong Gierveld and Kamphuis (1985) loneliness scale. To capture loneliness, NKPS participants were given a series of 11 items about their social and emotional lives and were asked to rank them (i.e., $1=$ yes; $2=$ more or less; $3=n o$ ). The items were (1) always someone to talk to about day to day problems; (2) missing having a really close friend; (3) experience a general sense of emptiness; (4) plenty of people I can lean on; (5) miss the pleasure of the company of others; (6) my circle of friends and acquaintances too limited; (7) there are many people I can trust completely; (8) there are enough people I feel close to; (9) missing having people around; (10) often feel rejected; (11) I can call on my friends whenever I need them.

Consistent with prior research (e.g., Dykstra and de Jong Gierveld 2004), including studies suggesting that the separate dimensions of the loneliness scale-social and emotional—are valid and reliable (e.g., de Jong Gierveld and van Tilburg 2010), items $1,4,7,8$, and 11 constitute the social loneliness score (Cronbach's alpha reliability score $=.80$ ) and items $2,3,5,6,9$, and 10 constitute the emotional loneliness score (Cronbach's alpha reliability score $=.82$ ). The procedure for using the scales required several steps (see de Jong Gierveld and van Tilburg 1999). For both the social and emotional loneliness scales, the first step was to reverse-code positive responses (e.g., there are enough people I feel close to) such that 1 indicated a positive response and 3 indicated a negative. Next, each item was recoded into dummy variables indicating a negative response (i.e., yes and more or less $=1$; and no $=0$ ). Next, dummy variables for each dimension were summed, resulting in two count measures. Social loneliness ranged from 0 to 5 , where 0 represented no social
loneliness and 5 represented high levels of social loneliness. Similarly, emotional loneliness ranged from 0 to 6 , where 0 represented no emotional loneliness and 6 represented high levels of emotional loneliness.

### 7.3.3.1 Covariates

Several covariates were included in the analyses to rule out potential factors that may confound the association between divorce and loneliness; and to determine whether the association between divorce and loneliness may be explained by additional factors. First, given that prior research strongly suggests the importance of socioeconomic status in both marital status outcomes (e.g., McLanahan 2004) and mental health related issues (e.g., Reiss 2013), models adjust for respondents' educational attainment and income. Similarly, demographic characteristics including age, sex, immigrant status, and birth cohort were controlled. Age was measured in years. Sex and immigrant status were dummy indicators where $1=$ female and $0=$ male; and for immigrant status, $1=$ born outside of the Netherlands and $0=$ born in the Netherlands. Birth cohort was measured using dummy indicators for 10-year birth intervals (i.e., 1920s through the 1980s). Education was measured using four dummy indicators for primary, lower secondary, upper secondary, and tertiary education. Income was measured in Euros and divided into quintile dummy indicators (reference $=$ first quintile). Models also adjust for the duration of marriage (in years), as it may be associated with the risk of divorce and social and emotional loneliness. This covariate adjusted for number of years of only marriage or current marriage among the married and remarried groups, and years of the last marriage among the divorced groups. A dummy indicator also was included for whether the divorce occurred within the past 3 years. In addition, because the presence of children may be an important determinant of marital status, age of divorce, and whether or not one is socially or emotionally lonely, dummy indicators were included for number of children and whether or not children lived at home. Finally, self-reported health ranging from $1=$ poor to $5=$ excellent and whether or not respondents were employed for pay were added as potential mediators. Table 7.1 shows descriptive statistics for all variables included in the analyses.

### 7.4 Analytic Approach

The analysis begins with a description of the sample (presented in Table 7.1). Second, four multivariate models were estimated for each outcome, social and emotional loneliness (presented in Tables 7.2 and 7.3). These models included the total analytic sample-all marital statuses were included for the purposes of comparison, and taking into account whether participants were divorced before or after age 50. The first model included marital status, socioeconomic background, demographic characteristics, duration of marriage, years since divorce. Model 2 added informa-

Table 7.1 Descriptive statistics for the Netherlands kinship panel study analytic sample

| Marital status | $\leq$ Age 50 | $\geq$ Age 50 |
| :---: | :---: | :---: |
| Married (reference) | 72 | 73 |
| Remarried | 14 | 9 |
| Divorced | 14 | 19 |
| Demographic characteristics |  |  |
| Female | 60 | 56 |
| Born outside of the Netherlands (yes/ no) | 8 | 3 |
| Birth cohort |  |  |
| 1920s (reference) | - | 13 |
| 1930s | - | 28 |
| 1940s | - | 42 |
| 1950s | 23 | 17 |
| 1960s | 41 | - |
| 1970s | 29 | - |
| 1980s | 7 | - |
| Education |  |  |
| Primary (reference) | 4 | 15 |
| Lower secondary | 21 | 35 |
| Upper secondary | 38 | 22 |
| Tertiary | 36 | 28 |
| Income |  |  |
| 1st quintile | 21 | 19 |
| 2nd quintile | 18 | 24 |
| 3rd quintile | 23 | 15 |
| 4th quintile | 23 | 19 |
| 5 th quintile | 16 | 23 |
| Mean duration of marriage | 13 (8) | 32 (13) |
| Divorced in past 3 years | 2 | 1 |
| Children |  |  |
| No children (reference) | 42 | 16 |
| One to three children | 54 | 70 |
| More than three children | 4 | 15 |
| Child lives at home | 55 | 16 |
| Individual Charateristics |  |  |
| Mean self-reported health $($ range $=1-5$ ) | 4.1 (.7) | 3.8 (.9) |
| Employed in paid work (yes/no) | 73 | 33 |
| Dependent variables |  |  |
| Mean social loneliness (range $=0-5$ ) | 1.6 (2) | 1.9 (2) |
| Mean emotional loneliness (range = 0-6) | 1.2 (2) | 1.4 (2) |
| $N$ | 4596 | 3909 |

Note: Standard deviations shown in parentheses

Table 7.2 Results from negative binomial regression models (Incidence Rate Ratios) predicting social loneliness by marital status and covariates $(N=8505)$

|  | Model 1 |  | Model 2 |  | Model 3 |  | Model 4 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Marital status |  |  |  |  |  |  |  |  |
| Married (reference) | - |  | - |  | - |  | - |  |
| Remarried $\geqq$ Age 50 | 1.05 |  | 1.06 |  | 1.06 |  | 1.03 |  |
| Remarried < Age 50 | 1.01 |  | 1.02 |  | 1.02 |  | 1.00 |  |
| Divorced $\geqq$ Age 50 | 1.06 |  | 1.07 |  | 1.08 |  | 1.04 |  |
| Divorced < Age 50 | 1.20 | *** | 1.21 | *** | 1.22 | *** | 1.18 | ** |
| Demographic characteristics |  |  |  |  |  |  |  |  |
| Age | 1.00 |  | 1.00 | * | 1.00 |  | 1.01 |  |
| Female | . 78 | *** | . 77 | *** | . 75 | *** | . 76 | *** |
| Born outside the Netherlands (yes/no) | 1.40 | *** | 1.40 | *** | 1.39 | *** | 1.36 | *** |
| Birth cohort |  |  |  |  |  |  |  |  |
| 1920s (reference) | - |  | - |  | - |  | - |  |
| 1930s | . 84 | ** | . 85 | ** | . 83 | ** | . 84 | ** |
| 1940s | . 86 |  | . 86 |  | . 86 |  | . 87 |  |
| 1950s | . 78 | * | . 79 | * | . 78 | * | . 79 | * |
| 1960s | . 84 |  | . 82 |  | . 82 |  | . 84 |  |
| 1970s | . 72 |  | . 71 |  | . 71 |  | . 74 |  |
| 1980s | . 65 |  | . 63 |  | . 63 |  | . 68 |  |
| Education |  |  |  |  |  |  |  |  |
| Primary (reference) | - |  | - |  | - |  | - |  |
| Lower secondary | . 91 | * | . 90 | ** | . 91 | * | . 93 |  |
| Upper secondary | . 85 | *** | . 84 | *** | . 86 | *** | . 89 | ** |
| Tertiary | . 77 | *** | . 77 | *** | . 78 | *** | . 82 | *** |
| Income |  |  |  |  |  |  |  |  |
| 1st quintile (reference) | - |  | - |  | - |  | - |  |
| 2nd quintile | 1.00 |  | 1.00 |  | 1.00 |  | 1.00 |  |
| 3rd quintile | . 95 |  | . 95 |  | . 96 |  | . 97 |  |
| 4th quintile | . 96 |  | . 96 |  | . 97 |  | . 99 |  |
| 5th quintile | . 95 |  | . 95 |  | . 96 |  | . 98 |  |
| Duration of marriage | 1.00 | * | 1.00 | * | 1.00 | * | 1.00 | * |
| Divorced in past 3 years | 1.16 |  | 1.15 |  | 1.15 |  | 1.16 |  |
| Children |  |  |  |  |  |  |  |  |
| No children (reference) | - |  | - |  | - |  | - |  |
| One to three children |  |  | 1.00 |  | . 99 |  | 1.01 |  |
| More than three children |  |  | . 93 |  | . 91 |  | . 93 |  |
| Child lives at home |  |  | 1.07 | * | 1.08 | * | 1.08 | * |
| Individual characteristics |  |  |  |  |  |  |  |  |
| Employed in paid work (yes/no) |  |  |  |  | . 87 | *** | . 91 | ** |
| Health (range = 1-5) |  |  |  |  |  |  | . 88 | *** |
| Wald Chi-Square | 449.6 | *** | 458.4 | *** | 488.4 | *** | 589.7 | *** |

$* p<.05, * * p<.01, * * * p<.001$

Table 7.3 Results from negative binomial regression models (IRRs) predicting emotional loneliness by marital status and covariates $(N=8505)$

|  | Model 1 |  | Model 2 |  | Model 3 |  | Model 4 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Marital status |  |  |  |  |  |  |  |  |
| Married (reference) | - |  | - |  | - |  | - |  |
| Remarried $\geqq$ age 50 | 1.33 | ** | 1.33 | ** | 1.32 | ** | 1.26 | ** |
| Remarried < age 50 | 1.20 | ** | 1.21 | ** | 1.21 | ** | 1.18 | * |
| Divorced $\geqq$ age 50 | 1.97 | *** | 1.97 | *** | 1.99 | *** | 1.81 | *** |
| Divorced < age 50 | 2.02 | *** | 2.03 | *** | 2.04 | *** | 1.93 | *** |
| Demographic characteristics |  |  |  |  |  |  |  |  |
| Age | 1.00 |  | 1.00 |  | 1.00 |  | 1.00 |  |
| Female | . 97 |  | . 97 |  | . 94 |  | . 95 |  |
| Born outside the Netherlands (yes/no) | 1.69 | *** | 1.70 | *** | 1.70 | *** | 1.60 | *** |
| Birth cohort |  |  |  |  |  |  |  |  |
| 1920s | - |  | - |  | - |  | - |  |
| 1930s | . 75 | ** | . 74 | ** | . 72 | ** | . 73 | ** |
| 1940s | . 70 | * | . 69 | ** | . 69 | ** | . 67 | ** |
| 1950s | . 65 | * | . 65 | * | . 66 | * | . 63 | * |
| 1960s | . 62 | * | . 61 | * | . 60 | * | . 60 | * |
| 1970s | . 63 |  | . 63 |  | . 60 |  | . 62 |  |
| 1980s | . 35 |  | . 35 |  | . 31 | * | . 32 | * |
| Education |  |  |  |  |  |  |  |  |
| Primary (reference) | - |  | - |  | - |  | - |  |
| Lower secondary | . 75 | *** | . 75 | *** | . 75 | *** | . 79 | *** |
| Upper secondary | . 67 | *** | . 67 | *** | . 68 | *** | . 74 | *** |
| Tertiary | . 63 | *** | . 63 | *** | . 65 | *** | . 72 | *** |
| Income |  |  |  |  |  |  |  |  |
| 1st quintile (reference) |  |  |  |  |  |  |  |  |
| 2nd quintile | 1.00 |  | 1.01 |  | 1.00 |  | . 99 |  |
| 3rd quintile | . 89 | * | . 89 | * | . 91 |  | . 92 |  |
| 4th quintile | . 89 | * | . 89 | * | . 91 |  | . 94 |  |
| 5th quintile | . 85 | ** | . 85 | ** | . 87 | * | . 92 |  |
| Duration of marriage | 1.00 |  | 1.00 |  | 1.00 |  | 1.00 |  |
| Divorced in past 3 years | 1.39 | *** | 1.39 | ** | 1.39 | ** | 1.38 | ** |
| Children |  |  |  |  |  |  |  |  |
| No children (reference) |  |  | - |  | - |  | - |  |
| One to three children |  |  | 1.03 |  | 1.02 |  | 1.05 |  |
| More than three children |  |  | . 96 |  | . 94 |  | . 98 |  |
| Child lives at home |  |  | 1.00 |  | 1.01 |  | 1.02 |  |
| Individual characteristics |  |  |  |  |  |  |  |  |
| Employed in paid work (yes/no) |  |  |  |  | . 81 | *** | . 91 | * |
| Health (range $=1-5$ ) |  |  |  |  |  |  | . 74 | *** |
| Wald Chi-Square | 690.9 | *** | 693.0 | *** | 725.1 | *** | 926.29 | *** |

$* p<.05, * * p<.01, * * * p<.001$
tion about children as they may buffer against loneliness, particularly as parents age. Model 3 adds paid employment to Model 2-employed people may be less likely to feel loneliness due to time spent with co-workers. Model 4 added self-reported health because healthier people may be better able to engage socially compared to those who are less healthy, and health likely differs between younger and older divorcees. Third, separate models were estimated for each cohort to determine similarities and differences in the associations between divorce and social and emotional loneliness across birth cohorts. Models were estimated using negative binomial regression (NBR) as the outcomes, social and emotional loneliness, were overdispersed count data. Over-dispersion means that the conditional variance exceeds the conditional mean, and in this case, Poisson regression would return less precise confidence intervals (Long 1997). Incidence rate ratios (IRRs) from negative binomial regression models with robust standard errors to adjust for nonindependence across waves are reported for all analyses. IRRs offer a more intuitive interpretation than NBR coefficients, which tell us the differences in the log of expected counts. For example, one would interpret an IRR for social loneliness as the factor with which the rate of change in social loneliness occurs when we shift from the married (reference) to the divorced group.

### 7.4.1 Results

Table 7.2 shows the results of the four negative binomial regression models estimating social loneliness by marital status and covariates. In Model 1, after adjusting for demographic characteristics, duration of marriage, and whether divorced in last 3 years, compared to those who were continuously married (i.e., no divorce nor remarriage), the only significantly different group was those who were younger than age 50 and divorced. Holding constant all other groups, and controlling for demographic characteristics, duration of marriage, and divorced within last 3 years, the younger divorced group versus those continuously married had a rate 1.20 times greater for social loneliness. While the same was true for all other marital status groups, the IRRs were not significant and all were close to one. The relationship changed very little once additional covariates-for children and individual charac-teristics-were added in Models 3 and 4. In terms of the covariate associations with social loneliness, after all adjustments in Model 4, the rate was lower for females compared to males by a factor of .76 and those born outside of the Netherlands were significantly socially lonelier ( 1.36 times greater) than those native born. Moreover, those born in the 1930s (a factor of .84) and the 1950s (a factor of .79 ) were less socially lonely compared to those born earlier, in the 1920s. It is important to note that the reference category may be a selective group as they were born in the 1920s and still alive, and thus may have had relatively lower levels of loneliness. Still, the significantly lower rate ratio in the 1950s cohort may be due to period effects, and 1950s predating the dramatic rise in divorce in Western countries.

Turning now to Table 7.3, while the patterns of association between those divorced younger than age 50 and emotional loneliness were largely the same, the magnitude of the association was stronger compared to the results for social loneliness. Focusing on Models 3 and 4, holding all else constant, those younger than age 50 versus those who were married were emotionally lonelier by a factor of 1.93 . While the size of the IRR was larger for this group, in comparison to those continuously married, both remarried and divorced groups were emotionally lonelier than the continuously married. Moreover, the addition of self-reported health in Model 4, reduces the magnitude of all marital status IRRs; the largest decrease was for those age 50 and older (i.e., IRR decreases from 1.97 to 1.81), and suggests that divorce at or older than age 50 (in part) operates through health to influence emotional loneliness. In terms of covariates, apart from birth cohort (where there were more cohort differences) and sex and whether or not children live at home (where there were no associations), the patterns were the same for emotional loneliness as they were for social loneliness in Table 7.2. It is worth noting that education appears to be protective against both social and emotional loneliness (Tables 7.2 and 7.3), which is consistent with what we would expect given the overall education gradient in health (e.g., Elo and Preston 1996).

Next, the results of three separately estimated negative binomial models for women and men are shown in Table 7.4. The first and second columns restrict the samples to those younger than age 50 and those age 50 and older and predicts social and emotional loneliness by whether women and men were divorced and married (reference category) for their respective age groups, net of all covariates. The third column (for women and men) restricts the sample to only those who were divorced and age 50 and older and those who were divorce and younger than age 50 (reference category). Focusing first on the three models for women, those divorced who were younger than age 50 are more socially and emotionally lonely compared to their married counterparts. However, the magnitude of the association was higher for emotional loneliness. In terms of both social and emotional loneliness, there was no significant difference between older divorced women and their married counterparts, nor was there a difference between older and younger divorced women. In terms of men, on the other hand, the rates of social and emotional loneliness were greater for both younger and older divorced men compared to their married counterparts of the same age. Older versus younger divorced men were less emotionally lonely, although the IRR was not statistically significant. Older and younger divorced men did not differ in terms of social loneliness.

Finally, Cherlin (2010) argues that the meaning of marriage has changed over time, shifting from instrumental institutions that contribute to the wellbeing of societies to more individual, emotional unions characterized by a pursuit of love and happiness. Given this possibility, combined with divorce becoming increasingly normative over time, it is important to consider potential cohort differences in the association between divorce and social and emotional loneliness. Table 7.5 shows the results from NBR models estimated separately by birth cohort, net of all covariates (collapsing categories for 1920s and 1930s and for 1970s and 1980s because
Table 7.4 Results from negative binomial regression models (IRRs) predicting social and emotional loneliness by divorce, age, and sex

|  | Wom |  |  |  |  | Men |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { ge } 50 \\ & \text { d }<\text { Age } \end{aligned}$ | Divor <br> 50 <br> (ref. <br> Age | Age <br> ied $\geq$ | Divorced $\geq$ Age 50 (ref. = divorced< Age 50) | Divorced < Age 50 (ref. = married $<$ Age 50) | Divo (ref. | $\begin{aligned} & \geq \text { Age } \\ & \text { mried } \geq \end{aligned}$ |  | Divorced $\geq$ Age 50 <br> (ref. = divorced< <br> Age 50) |
| Social loneliness | 1.11 |  | 1.08 |  | 1.01 | 1.24 | ** | 1.24 | *** | 1.05 |
| Emotional loneliness | 1.50 | *** | 1.90 | *** | 1.01 | 2.11 | *** | 2.01 | *** | . 80 |
| $N$ | 2941 |  | 2018 |  | 864 | 1655 |  | 1891 |  | 468 |

Note. Each column was estimated separately for social and emotional loneliness and each model includes all covariates. The first two columns for women and men include only married and divorced groups and the reference = married. The third column for men and women is restricted to only those who were divorced; the reference $=$ divorced less than age 50
$* p<.05, * * p<.01, * * * p<.001$

Table 7.5 Results from negative binomial regression models (IRRs) predicting social and emotional loneliness by marital status across cohorts

|  | $\begin{array}{l}1920 \mathrm{~s} \text { and } \\ 1930 \mathrm{~s}\end{array}$ |  | 1940 s |  | 1950 s |  | 1960 s |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |\(\left.⿻ \begin{array}{l}1970 \mathrm{~s} and <br>

1980 \mathrm{~s}\end{array}\right]\).

Note. For each cohort, models were estimated separately for social and emotional loneliness and each model includes all covariates. The reference group includes married and remarried groups $* p<.05 * * p<.01 * * * p<.001$
these categories were smallest). Among those born in the 1920s through the 1960s, the patterns of association for both social and emotional loneliness were the same. There was no association between being divorce versus married and social loneliness, rather within each of these cohort groups, the divorced were significantly emotionally lonelier compared married groups within the same cohort (by factors ranging from 1.55 for the 1960 s cohort to 1.89 for the 1920 s and 1930s cohorts). There was no statistically significant association between divorce and social nor emotional loneliness for the 1970s and 1980s cohort group.

### 7.5 Discussion

This chapter extends knowledge about the association between marital status, and particularly gray divorce and social and emotional loneliness. First, unlike the few studies that examine the consequences of gray divorce in particular, the current study includes a more recent sample, accounts for divorce prior to and after age 50, examines the association between divorce and loneliness across cohort groups, and explores the role of health and employment in these associations. Contrary to expectations, results from the NKPS (full sample) suggest that gray divorce is not associated significantly with social loneliness, but there does appear to be a significant association between divorce prior to midlife and social loneliness. Both those divorced prior to and after midlife were emotionally lonelier than their married counterparts, regardless of age, birth cohort, and remarriage. While the associations between younger divorce and gray divorce (versus each age group's respective married counterparts) and emotional loneliness did not differ much for women and men, younger and gray divorced men were socially lonelier than their married counterparts (in their respective age groups). When the sample was restricted to divorcees,
there were no significant differences for neither women nor men. Interestingly, gray divorced men were less emotionally lonely compared to their younger divorced counterparts, but the association was not statistically significant. Interestingly, while women versus men were significantly socially lonelier in the full sample (Table 7.2), there was no association between divorce and social loneliness in our separate estimates for women and men (in Table 7.3). Conversely, while there was no difference between women and men in terms of emotional loneliness in our full sample; separately, gray and younger divorce increased significantly emotional loneliness for women by a factor of 1.90 and 1.50 respectively. Finally, in terms of health and employment, health (but not employment) attenuated part of the association between divorce prior to midlife and after and emotional loneliness.

There may be a bi-directional relationship between divorcing later in life and health. Those who are healthier may be in part socially and emotionally protected as they may be better capable of seeking out new friendships or spending time with grandchildren. Healthy older divorcees may invest more in living more socially active lives following a divorce (e.g., Gerstel 1988; Kalmijn and Broese van Groenou 2005), particularly older women. This may be why there was no evidence that neither older divorced versus married women, nor older versus younger divorced women were socially lonelier. On the other hand, those who are either physically or psychologically less healthy may experience both declines in physical and psychological health, and the risk of loneliness. Moreover, our findings suggest that younger and older women versus men may be socially lonelier, but this does not appear to be the result of divorce. It may be that women's versus men's personal standards for, or expectations of, the quality or quantity of their social relationships go unmet. The cultivation of kinship ties and seeking of emotional support outside of women's marriages may strain personal relationships, leaving women feeling more socially than emotionally lonely.

Other findings were consistent with prior research (Dykstra and de Jong Gierveld 2004) in terms of older divorced versus married men, who were both more socially and emotionally lonely. While I expected older divorced men to be emotionally lonelier than younger divorced men, as younger men may have more options to repartner or spend time with friends, it appears that divorced younger men were more vulnerable to emotional loneliness. This may be simply about age. That is, it is possible that younger men have higher expectations for emotional support from a spouse. Whereas, older men may find other sources of emotional support, possibly a benefit of time (e.g., Weiss 1973).

### 7.6 Conclusion

There are several limitations to this study. First, as is the case with all observational, longitudinal studies, attrition across study waves may introduce biased estimates. While missing values were multiply imputed for covariates, they were not for mari-
tal status nor social and emotional loneliness. It may be that the most disadvantaged groups, or those who move to undisclosed locations and cannot be found for followup, are the most likely to attrite from the study. Thus, to the extent that this is true, it is difficult to determine whether these groups are more or less likely to divorce and suffer from social and emotional loneliness. Second, the results of the current study may be biased to the extent that pre- and post-divorce circumstances more strongly predict the likelihood that one is lonely than the actual divorce itself. Given the short time between waves 1 and 2 of the study (approximately 2 years), there were too few marital status changes to examine how pre-divorce circumstances affected post-divorce levels of social and emotional loneliness. This is an important avenue for future research.

There are many challenges associated with studying gray divorce, as the event itself may be due to factors which came long before the observation period. This unobserved heterogeneity is difficult to address as the life course is a long process. Despite the limitations, however, this study contributes to the literature an examination of how divorce and remarriage among different age groups influence two important dimensions of loneliness, and offers some potential avenues for future research. The proportion of couples who divorce at or later than midlife may continue to grow, and scholars should continue to investigate loneliness and other dimensions of social life that may have long-term consequences for health and longevity (e.g., Holt-Lunstad et al. 2015).

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# Chapter 8 <br> Does Divorce Penalize Elderly Fathers in Receiving Help from Their Children? Evidence from Russia 

Margot Maes, Gert Thielemans, and Ekaterina Tretyakova


#### Abstract

In times of increased pressure on welfare states, filial caregiving to elderly parents is becoming an increasingly important addition to state organised elderly care. However, certain life course events may cause the relationship between parents and their children to decline, impeding upward intergenerational support. We investigated the effect of divorce on the probability of receiving support from adult children, looking specifically at differences between mothers and fathers. Using Russian data from the 2016 wave of the "comprehensive monitoring of living conditions of the population"-survey, we perform logistic regressions to examine the probability of elderly parents receiving four types of intergenerational support. We found that divorced parents are less likely to receive care than either married or widowed parents. Furthermore, we found evidence that the negative association between divorce and care is stronger for fathers than for mothers. The relative lack of filial caregiving for divorced fathers is likely among the reasons why an increasing group of single elderly men are among those with the highest poverty risks in Russia.


Keywords Divorce • Intergenerational support • Gender • Elderly • Caregiving

### 8.1 Introduction

Adult children are an important node in the caregiving network of their elderly parents. Despite the fact that children -within a historical perspective- have always taken care of their parents, there are a number of social and demographical determinants that question this historic self-evidence of family caregiving today (NaveHerz 2012). On the one hand, European countries experience rapid ageing of the

[^25]population, which challenges long-term care services (Broese van Groenou and De Boer 2016). The increased life expectancy results in an extended period of longterm care need. As a result, most European societies are adapting their policies taking into account informal caregiving -depending on the context- as either a complement or a substitute for formal care services (Bonsang 2009).

On the other hand, the European population in general is confronted with the process of individualization, resulting in de-standardization of family structures, such as a rise in divorce (Brückner and Mayer 2005). Moreover, the incidence of divorce is rapidly increasing in the group of people aged over 50, a development that has been coined as the "gray divorce revolution" (Brown and Lin 2012). The academic consensus is that parental divorce is detrimental for parent-adult child relationships in general, and especially so for fathers and their adult children (Cooney and Uhlenberg 1990; Daatland 2007; Lye 1996; Saraceno 2008). It is then possible that these weakened ties result in diminished support from adult children to divorced elderly parents. In various studies across different contexts, scholars have noted that the amount of post-divorce contact between fathers and their children declines (Daatland 2007; Kalmijn 2007), their social and caregiving network shrinks (Barrett and Lynch 1999; Dykstra 1997) and they receive less emotional support in comparison to both married and widowed fathers (Aquilino 1994). Consequently, divorced, elderly fathers are at risk of receiving less support from their children.

Because intergenerational support depends on both the familial network and the wider cultural context (Lowenstein and Ogg 2003), Russia presents an interesting setting for the study of the effects of divorce on filial caregiving. First, the term "custody" itself is usually not part of the Russian legal vernacular. It is used to denote residence of the child, but has no legal meaning. Although there are no preferential rights for mothers concerning child residence, the court's belief that mothers are better suited to look after children results in up to $90 \%$ of children staying with their mothers (Khazova 2005; Tretyakova 2018). This implies that children tend to have stronger ties with their mothers than their fathers after divorce. Next, the Russian system for elderly care is highly dependent on personal savings as well as support from family members. Government support is limited and underdeveloped. While this system worked in traditional societies, where intra-family transfers played an important role in the wellbeing of the elderly population, it has become more controversial due to the combined effects of an ageing population and the rise of divorces in families with children. As informal support for the elderly is more rule than exception in Russia, the country provides an excellent opportunity to assess the detrimental effects of weakened ties between parents and their children.

This chapter therefore intends to shed light on the association between partnership status and intergenerational support received by elderly parents in Russia. We look at differences between mothers and fathers, and go beyond a unidimensional care-question by looking into four different types of filial support: (a) financial support, (b) material support, (c) help with housework, and (d) care during illness.

We compare elderly mothers to fathers and look for differences between widowhood, divorce and elderly couples who remained married.

Our research extends the knowledge of the field in several ways. While there exists an extensive literature on intergenerational support in Western societies (Bonsang 2009; Brandt et al. 2009; Dykstra 1997; Hämäläinen and Tanskanen 2017; Kalmijn 2012; Silverstein et al. 2006), we expand the current literature to the Russian context, where the question of upward intergenerational support has become prevalent due to sociodemographic changes. With regard to the ageing of the population, almost one-fourth of the Russian population (or 36.7 million of people) is older than the retirement age, which is officially 55 years old for women and 60 years old for men (Russian Federal State Statistic Service n.d.). Due to transformations of the family structure and improvements in medical care over the last 90 years, there has been a growth of the percentage of elderly people in the age structure of the Russian population. Projections show a further increase of the demographic burden on the working population: even (modest) predictions point to a constant increase in the amount of retirees in Russia for at least the next 15 years. Besides an ageing population, the crude divorce rate in Russia has risen to 4.2 per mille since the second half of the twentieth century, which is the highest among European countries.

Next, the focus of previous research has predominantly been on types of caregiving and not care-receiving. According to Saxonberg and Sirovátka (2006), Eastern European countries tend to have a different pattern regarding family policies in comparison with other European societies. Most European regions have a policy history with a shift from familialization towards defamilialization (Saxonberg 2013). This means that the responsibility regarding family policies moves from informal interventions (e.g. children taking up elderly care) towards formal interference (e.g. building a formal safety net for elderly with governmental funding). However, Eastern European countries have evolved differently in the post-Soviet era. As a reaction to the breakdown of the Soviet Union, they have made a reversed movement: from defamilialization towards familialization policies (Saxonberg and Sirovatka 2006). In the context of intergenerational solidarity, this means that informal care has taken a crucial position in Russian society as the formal alternative is now virtually non-existent. When we combine Saxonberg's defamilialization thesis with the ongoing demographic trends, the simultaneity of both transitions -population ageing and rise in divorce- increases the pressure on caregivers, which might pressurize intergenerational solidarity (Trommsdorff and Mayer 2012).

Moreover, to the best of our knowledge, upward intergenerational support in Russia has not yet been analysed in relationship to marital status, which has likely led to an overestimation of the support the elderly receive from their children. Finally, we combine gender with three types of partnership status and four different types of filial support in order to get a wide overview of support processes in Russia. Our findings can therefore be used as a broad base for future, more specific research into filial caregiving.

### 8.2 Theoretical Framework

Social exchange theorists emphasize the importance of reciprocity. They have argued that human behaviour is based on a rational cost-benefit analysis. Social interaction is then in essence the exchange of resources while factoring in (expected) rewards (Coleman 1994). This could suggest that parents who invested more in their children will receive more support in later life. Conversely, this also implies that adult children who expect higher rewards would offer more support to their parents. Both American and European studies have found that the parental investments of mothers, both temporal and emotional, were greater than those made by fathers (Kalmijn 2007; Silverstein et al. 2006). Although fathers’ investments have increased during the last decades, the discrepancy still exists. The reciprocityhypothesis then implies that fathers will receive less support in later-life. Informal caregiving between kin appears to favour mothers. Indeed, mothers have been found to receive more instrumental, financial, and emotional support from their offspring (Hämäläinen and Tanskanen 2017; Rossi and Rossi 1991; Silverstein and Bengtson 1997).

The common effects hypothesis predicts a further weakening of ties between divorced fathers and children since, in most cases, children reside with their mothers after divorce (Kalmijn 2012; Tretyakova 2018). Although fathers usually continue to be involved in their children's lives, these engagements are weaker. In light of Russian law practice on child residence after divorce, this point is especially salient. As the vast majority of children reside with their mothers after divorce (Khazova 2005; Tretyakova 2018), this leads to the weakening of father-child relationships. Due to the diminished return of intergenerational transfers after divorce, if a child experiences a decline in the father's involvement, this results in less frequent support and contact in later-life (Silverstein et al. 2002; Tretyakova 2018). Several studies with regard to intergenerational contact indicate that both the quality and the extent of contact after divorce diminishes, especially for fathers (Kaufman and Uhlenberg 1998; Silverstein and Bengtson 1997; Tomassini et al. 2004). Cooney and Uhlenberg (1990) concluded that the marital history of fathers is decisive for their father-child relationship in later life. Fewer contact means weaker ties, resulting in a decrease of intergenerational support from children.

Furthermore, Kalmijn (2007) has stated that marriage can protect men in terms of intergenerational support. The author refers to the "kinkeeping role" of mothers: keeping the family together by organizing family dinners or by stimulating children to take care of their fathers. The effects of this kinkeeping role are differentiated by marital quality. Offspring of happily married parents usually have a good relationship with both their parents, but in unstable marriages, the quality of one of the parent-child dyads tends to deteriorate as children develop a closer relationship with one of their parents. When an unstable marriage is terminated, the quality of the relationship between the other parent and the child worsens even further (Booth and Amato 1994). This weakening of ties is the consequence of the fact that a parental
divorce harms both the horizontal ties between both partners, as well as the vertical relationships between, for example, parent and child (Dykstra 1997). The kinkeeping hypothesis then implies that divorced fathers lose the benefits of marriage, which results in a decline of both intergenerational contact and support (Kalmijn 2007).

Marital disruption can also be the result of a parental death. In the case of widowhood, the extent of intergenerational contact and support changes as well. Whereas the amount of contact is relatively similar between widowed and married parents, previous research has shown that widow(er)s experience more support than married or divorced parents (Barrett and Lynch 1999; Kalmijn 2007). Yet, similarly to divorced fathers, the risk of receiving no care is larger for widowers than widows (Aquilino 1994; de Jong Gierveld and Dykstra 2002). Additionally, although widow(er)s tend to have a larger informal care network as compared to married or divorced parents, widowed fathers live more isolated than widowed mothers, widening the gender gap (Eggebeen 1992).

Taken together, the social exchange theory of reciprocity, the common effects hypothesis and the theory of women's kinkeeping role all suggest that divorced men are less likely to receive intergenerational support from their children. This leads to three testable hypotheses: (a) fathers receive less care from their children than mothers (H1); (b) divorcees receive less care than either still married parents or widow(er)s (H2); and (c) the interaction between gender and marital status is so that the negative association between divorce and filial care is stronger for men (H3). We hypothesize that these associations are significant after controlling for other relevant determinants of intergenerational support.

The extant literature points to several of these factors that influence the extent of intergenerational support. Firstly, having siblings has been found to be negatively associated with providing intergenerational support (Dykstra et al. 2014). When there are multiple siblings, adult children experience a reduced feeling of responsibility of taking care for their parents. Haberkern et al. (2013) showed that parents are more likely to receive care from an only child. When there are multiple siblings, the type and intensity of care depends on the family constellation. When all siblings are sons, parents are more likely to become institutionalized or helped by in-home carers. When one of the siblings is a female, other siblings expect her to do the majority of the caregiving. Second, increased opportunities for interaction between parents and children that follow from living close to one another was found to improve the extent of support (Bengtson and Roberts 1991). Lastly, earlier research has shown that the extent of care given increases when offspring receive financial transfers from their parents or when they expect a larger inheritance (Brandt et al. 2009). On the other hand, wealthier children have more opportunities to outsource both care- and help tasks, while wealthier parents might not need much aid at all. Similarly, educational attainment may alter the gender gap. The higher educated often hold more liberal attitudes towards gender roles. They may have had the opportunity to work in higher income jobs, which implies that they are more financially stable in later life, in comparison to the lower educated (Ha et al. 2006).

### 8.3 Data and Methods

We use data from the 2016 wave of the "comprehensive monitoring of living conditions of the population"-survey. The survey covered all regions of the Russian Federation, but was not conducted in hospitals and nursing homes. The total sample of this survey consists of 134,000 people over the age of 15 . From these, a selection was made of men aged 60 and upwards and women ages 55 or more, the respective ages at which people in Russia are allowed to retire. While retirement is not necessarily a point at which people become dependent on others for care due to physical disabilities, it does represent (in most cases) a sharp drop in income. This does mean that our sample likely exists of more healthy women than healthy men. We control for this disparity by not taking into account those respondents who indicated they did not need a particular type of support.

The survey offered information on four types of help the respondents might receive from their non-cohabiting children. These are binary indicators for whether or not the respondents receive that specific type of support from their children. The types of help are: (a) financial aid, (b) material aid, (c) help with housework, and (d) care during illness. Financial aid refers to receiving money from children, while material aid refers to children providing goods for their parents. Possible responses to the question whether they receive either of these types of help were yes, no, or not necessary. For each of the separate types of support between $15 \%$ and $25 \%$ of the respondents answered that the type of support was "not necessary" and were therefore excluded. Divided by gender, around 5\% more men indicated not to need help per type of support.

Respondents were selected on having at least one child aged 15 or more not living in the household. As the data did not allow us to control for higher order marriages, we make the assumption that a married or cohabiting respondent is someone who is still living together with the other parent of this child. This resulted in a total sample of 31,120 respondents, consisting of $31 \%$ males. We do not distinguish between marriage and cohabitation for elderly parents, so that someone in the sample that has experienced the dissolution of a partnership with children could either refer to legal divorce or the end of a cohabitational partnership. These divorced or separated parents made up $9 \%$ of respondents, versus $35 \%$ widowers. The remaining $56 \%$ were married or cohabitational partnerships. Because not all widowers or divorcees remain single, we controlled for size of the household by including an indicator for someone living in a single-person household. Of all widowers, 78\% were currently single, which was comparable to $76 \%$ of the divorcees.

Figure 8.1 shows the descriptive associations by gender and partnership status. Within the group of women, there does not appear to be much difference between care received by those who are divorced or those who are still married (or cohabiting). Widows do indicate they receive more of any of the four types of care from their children. Within the group of men, divorced fathers markedly indicated they receive fewer care than still married fathers, especially help with housework or care during illness. Looking across genders, divorced men receive fewer care than their


Fig. 8.1 Proportion of elderly Russian parents receiving aid, subdivided by gender and partnership status
*Note: 'Married or cohabiting' assumes that the partnership consists of both parents of at least one child older than 15 no longer living in the household
female counterparts, while at first sight, there are no remarkable differences between the other groups of men and women.

We added several control variables that the extant literature has found to be related to upward intergenerational support. Concerning individual characteristics of the respondent, age was included as a second order polynomial. Mean age of the sample was 68 years old ( $\mathrm{sd}=8.33$ ), with respondents ranging from 55 to 99 years old. The natural $\log$ of income was also included to indicate economic necessity. Mean income of the sample was 15,819 Russian Ruble (sd $=8865$ ). ${ }^{1}$ Next, since being above the legal retirement age does not necessarily mean that the respondents were retired, a separate indicator was included. Just over $80 \%$ of the respondents indicated that, during the last year, their main activity was that they were retired. As a final individual indicator, education level was included as three categories: $33 \%$ were lower educated (primary education or less), $49 \%$ were middle educated (more than primary, no tertiary education), and $19 \%$ were higher educated (at least some tertiary education).

Besides individual indicators, we included information on the children as well. First, the number of children aged 15 and upwards was included as a second order polynomial as it is unlikely that each additional child would result in a linear increase of support. The mean number of these children was $1.8(\mathrm{sd}=0.83)$. Finally, a proximity indicator for the distance between the respondent and the children was included. The survey asked whether or not any of the non-resident children lived in

[^26](a) the same village or city, (b) another village or city, (c) another country, (d) unknown. The proximity indicator was constructed as a dummy variable indicating whether or not at least one child was living in the same village or city. This was the case for $62 \%$ of the respondents.

For each of the four dependent variables, two separate logistic regressions were estimated. The first includes all indicators but no interactions between partnership status and gender. In the second type of models, these interactions were included. This allows us to formally test whether or not a model then separates the effects of partnership status by gender performs significantly better.

### 8.4 Results

Table 8.1 shows the results from eight logit models. Estimates are presented as odds ratios to facilitate interpretation. Evaluation of the first two hypotheses is done based on the first type of models. Men in general received significantly less support from their children after controlling for individual and child characteristics. Depending on the type of aid, the odds of receiving help are between 1.15 $(=1 / 0.868)$ and $1.26(=1 / 0.794)$ times lower for men than women. These results confirmed our first hypothesis (H1) that intergenerational support, on average, is lower for men than it is for women. Next, partnership status was shown to play a significant role in receiving intergenerational support as well. Net of the association with gender, widowed or married or cohabiting parents received significantly more support than divorced parents, except for financial support, where there was no difference between either married or divorced parents. In terms of magnitude, the differences ranged between 1.3 times higher odds of financial support for widowed parents than divorced parents and 3.1 times higher odds of receiving help with housework for married parents than for divorcees. This partly confirmed our second hypothesis (H2), that divorced parents receive less support than either widowed parents or parents who are still married.

Assessment of the third hypothesis (H3), that fathers suffer from an additional divorce penalty in terms of intergenerational support, is done based on the second type of models. The interaction term shows that negative associations that were found between divorce and receiving filial care is persistent after the inclusion of the interaction terms. The parameter estimates of these interactions show that this association is stronger for men than it is for women. Additionally, model fit statistics show that models that include the interaction perform significantly better than those who do not, and this for all four types of support. The third hypothesis was therefore confirmed. Since interpreting logit models with categorical interactions becomes unwieldy, marginal effects of gender on receiving support from children were calculated for all partnership types. Figure 8.2 shows that divorced men were between around 15 and 20 percentage points less likely to receive intergenerational support. These decreases in probability were significantly higher than for men in other partnership types.
Table 8.1 Results from logit models on the probability of elderly people receiving filial support

| Type of support | Financial support |  | Material support |  | Help with housework |  | Care during illness |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model | (1) | (2) | (1) | (2) | (1) | (2) | (1) | (2) |
| Male | $\begin{aligned} & 0.87 * * * \\ & (0.03) \end{aligned}$ | $\begin{aligned} & 0.456 * * \\ & (0.05) \end{aligned}$ | $\begin{aligned} & 0.85 * * * \\ & (0.03) \end{aligned}$ | $\begin{aligned} & 0.51 * * * \\ & (0.06) \end{aligned}$ | $\begin{aligned} & 0.83 * * * \\ & (0.03) \end{aligned}$ | $\begin{aligned} & 0.42 * * * \\ & (0.05) \end{aligned}$ | $\begin{aligned} & 0.79 * * * \\ & (0.03) \end{aligned}$ | $\begin{aligned} & 0.38 * * * \\ & (0.05) \end{aligned}$ |
| Partnership status (ref. divorced or separated) |  |  |  |  |  |  |  |  |
| Married or cohabiting | 1.05 (0.07) | 0.90 (0.06) | $\begin{array}{\|l} \hline 1.42 * * * \\ (0.09) \\ \hline \end{array}$ | $\begin{aligned} & 1.28 * * * \\ & (0.09) \\ & \hline \end{aligned}$ | $3.1 * * *(0.2)$ | $\begin{aligned} & 2.63 * * * \\ & (0.18) \end{aligned}$ | $\begin{aligned} & 2.59 * * * \\ & (0.17) \end{aligned}$ | $\begin{aligned} & 2.17 * * * \\ & (0.15) \end{aligned}$ |
| Widowed | $\begin{aligned} & 1.30 * * * \\ & (0.07) \\ & \hline \end{aligned}$ | $1.16 * *(0.07)$ | $\begin{aligned} & 1.33 * * * \\ & (0.07) \\ & \hline \end{aligned}$ | $1.19 * *(0.07)$ | $\begin{aligned} & 1.58 * * * \\ & (0.08) \\ & \hline \end{aligned}$ | $1.4 * * *(0.08)$ | $\begin{aligned} & 1.45 * * * \\ & (0.08) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.27 * * * \\ & (0.08) \end{aligned}$ |
| Male*married |  | $\begin{aligned} & 2.06 * * * \\ & (0.25) \end{aligned}$ |  | $\begin{aligned} & 1.71 * * * \\ & (0.22) \end{aligned}$ |  | $\begin{array}{\|l} \hline 2.16 * * * \\ (0.26) \end{array}$ |  | $\begin{aligned} & 2.29 * * * \\ & (0.29) \end{aligned}$ |
| Male*widowed |  | $\begin{aligned} & 1.83 * * * \\ & (0.25) \\ & \hline \end{aligned}$ |  | $\begin{aligned} & 1.86 * * * \\ & (0.26) \\ & \hline \end{aligned}$ |  | $\begin{aligned} & 1.90 * * * \\ & (0.25) \end{aligned}$ |  | $\begin{aligned} & 1.99 * * * \\ & (0.28) \end{aligned}$ |
| Living alone | $\begin{aligned} & 1.29 * * * \\ & (0.06) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.31 * * * \\ & (0.06) \end{aligned}$ | $\begin{aligned} & 1.61 * * * \\ & (0.08) \end{aligned}$ | $\begin{aligned} & 1.61 * * * \\ & (0.08) \end{aligned}$ | $\begin{aligned} & 2.12 * * * \\ & (0.11) \\ & \hline \end{aligned}$ | $\begin{array}{\|l} \hline 2.15 * * * \\ (0.11) \\ \hline \end{array}$ | $\begin{aligned} & 2.67 * * * \\ & (0.14) \\ & \hline \end{aligned}$ | $\begin{aligned} & 2.71 * * * \\ & (0.14) \\ & \hline \end{aligned}$ |
| Retired | $\begin{aligned} & 1.82 * * * \\ & (0.08) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.83 * * * \\ & (0.09) \end{aligned}$ | $\begin{aligned} & 1.44 * * * \\ & (0.07) \end{aligned}$ | $\begin{aligned} & 1.44 * * * \\ & (0.07) \end{aligned}$ | 1.10* (0.05) | 1.11* (0.05) | $\begin{aligned} & 1.31 * * * \\ & (0.06) \end{aligned}$ | $\begin{aligned} & 1.32 * * * \\ & (0.06) \end{aligned}$ |
| Age | $\begin{aligned} & 1.27 * * * \\ & (0.03) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.27 * * * \\ & (0.03) \end{aligned}$ | 0.98 (0.03) | 0.98 (0.03) | $\begin{aligned} & 0.86 * * * \\ & (0.02) \end{aligned}$ | $\begin{aligned} & 0.86 * * * \\ & (0.02) \\ & \hline \end{aligned}$ | 0.99 (0.03) | 0.99 (0.03) |
| Age squared | $\begin{aligned} & 0.10 * * * \\ & (0.00) \end{aligned}$ | $\begin{aligned} & 0.10 * * * \\ & (0.00) \end{aligned}$ | $1.00 *(0.00)$ | $1.00 * *(0.00)$ | $\begin{aligned} & 1.00 * * * \\ & (0.00) \end{aligned}$ | $\begin{aligned} & 1.00 * * * \\ & (0.00) \\ & \hline \end{aligned}$ | 1.00 (0.00) | 1.00 (0.00) |
| Education level (ref. lower) |  |  |  |  |  |  |  |  |
| Middle | $\begin{aligned} & 1.15 * * * \\ & (0.04) \end{aligned}$ | $\begin{aligned} & 1.14 * * * \\ & (0.04) \end{aligned}$ | 1.04 (0.03) | 1.04 (0.03) | 0.96 (0.03) | 0.96 (0.03) | $0.91 * *$ (0.03) | $0.91 * *(0.03)$ |
| Higher | $\begin{aligned} & 1.35 * * * \\ & (0.06) \end{aligned}$ | $\begin{aligned} & 1.34 * * * \\ & (0.06) \\ & \hline \end{aligned}$ | 1.02 (0.04) | 1.02 (0.04) | $\begin{aligned} & 0.84 * * * \\ & (0.04) \end{aligned}$ | $\begin{aligned} & 0.83 * * * \\ & (0.04) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.81 * * * \\ & (0.04) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.81 * * * \\ & (0.04) \\ & \hline \end{aligned}$ |
| Log monthly income | $\begin{aligned} & 1.50 * * * \\ & (0.06) \end{aligned}$ | $\begin{aligned} & 1.51 * * * \\ & (0.06) \end{aligned}$ | $1.12 * *(0.04)$ | $1.12 * *(0.04)$ | $\begin{aligned} & 0.87 * * * \\ & (0.03) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.87 * * * \\ & (0.03) \\ & \hline \end{aligned}$ | 0.95 (0.04) | 0.95 (0.04) |

Table 8.1 (continued)

| Type of support | Financial support |  | Material support |  | Help with housework |  | Care during illness |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model | (1) | (2) | (1) | (2) | (1) | (2) | (1) | (2) |
| Child living in same village or city | $\begin{aligned} & 0.77 * * * \\ & (0.02) \end{aligned}$ | $\begin{aligned} & 0.76 * * * \\ & (0.02) \end{aligned}$ | $\begin{aligned} & 1.18 * * * \\ & (0.03) \end{aligned}$ | $\begin{aligned} & 1.17 * * * \\ & (0.03) \end{aligned}$ | $\begin{aligned} & 2.48 * * * \\ & (0.07) \end{aligned}$ | $\begin{aligned} & 2.46 * * * \\ & (0.07) \end{aligned}$ | $\begin{aligned} & 2.46 * * * \\ & (0.07) \end{aligned}$ | $\begin{aligned} & 2.45 * * * \\ & (0.07) \end{aligned}$ |
| Number of children $>15$ years old | $\begin{aligned} & 1.42 * * * \\ & (0.06) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.42 * * * \\ & (0.06) \end{aligned}$ | $\begin{aligned} & 1.45 * * * \\ & (0.07) \end{aligned}$ | $\begin{aligned} & 1.45 * * * \\ & (0.07) \end{aligned}$ | $\begin{aligned} & 1.73 * * * \\ & (0.08) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.74 * * * \\ & (0.08) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.49 * * * \\ & (0.07) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.49 * * * \\ & (0.07) \\ & \hline \end{aligned}$ |
| $\mathrm{N}^{\circ}$ of children squared | $\begin{aligned} & 0.97 * * * \\ & (0.01) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.97 * * * \\ & (0.01) \end{aligned}$ | 0.98 (0.01) | 0.98* (0.01) | $\begin{aligned} & 0.96 * * * \\ & (0.01) \end{aligned}$ | $\begin{aligned} & 0.96 * * * \\ & (0.01) \end{aligned}$ | $\begin{aligned} & 0.97 * * * \\ & (0.01) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.967 * * * \\ & (0.01) \end{aligned}$ |
| Ln (Constant) | $\begin{aligned} & -13.8 * * * \\ & (1.00) \\ & \hline \end{aligned}$ | $\begin{aligned} & -13.8 * * * \\ & (1.00) \end{aligned}$ | $\begin{aligned} & \hline-3.11 * * \\ & (1.01) \\ & \hline \end{aligned}$ | $\begin{aligned} & -3.15 * * \\ & (1.01) \end{aligned}$ | $\begin{aligned} & 4.45 * * * \\ & (1.05) \\ & \hline \end{aligned}$ | $\begin{aligned} & 4.56 * * * \\ & (1.05) \end{aligned}$ | -1.80 (1.07) | -1.65 (1.07) |
| N | 22,436 | 22,436 | 22,521 | 22,521 | 24,922 | 24,922 | 22,527 | 22,527 |
| Model fit statistics |  |  |  |  |  |  |  |  |
| Log likelihood | -15,288 | -14,919 | -15,341 | -14,752 | -15,380 | -14,456 | -14,469 | -13,464 |
| LR chi-squared | 311.20 *** | 1049.1*** | $491.12 * * *$ | $1670.8 * * *$ | $271.81 * * *$ | 2119.3 *** | 370.47 *** | $2380.8 * * *$ |
| Model comparison |  |  |  |  |  |  |  |  |
| LR chi-square (df) |  | 35.82 (2)*** |  | 22.02 (2)*** |  | 41.43 (2)*** |  | 45.54 (2)*** |
| AIC | 29901.93 | 29870.11 | 29554.04 | 29536.02 | 28982.62 | 28945.2 | 27002.05 | 26960.51 |
| BIC | 30014.18 | 29998.4 | 29666.35 | 29664.37 | 29096.35 | 29075.17 | 27114.37 | 27088.87 |

Estimates displayed as odds ratios, standard errors in parentheses
Note. $* \mathrm{p}<0.05 ; * * \mathrm{p}<0.01 ; * * * \mathrm{p}<0.001$
Regressions do not include respondents who indicated they did not need that type of support
'Married or cohabiting' indicates that the partnership consists of both parents of at least one child older than 15 no longer living in the household


Fig. 8.2 Estimated percentage point effects of gender (being male) on the probability of receiving support from adult children. Confidence bounds (95\%)
Marginal effects estimated from models including all covariates and interactions with gender. Effects occur at mean values of covariates other than gender

As far as the control variables are concerned, the models showed several other interesting results. First, the polynomials for age showed a decreasing association with financial aid, but an increasing one with help in the housework. Second, income was significantly associated with a higher probability of receiving financial or material support. It was on the other hand negatively related to help with the housework, and not significantly associated with care during illness. Educational attainment on the other hand was found to be negatively related to care during illness and -to a lesser extent- help with the housework, positively related to financial support, but no significant association was found with material support. Next, having children living in the same village or city was negatively related to receiving financial aid, but positively related to the other three types. Both being retired and being in a single-person household was associated with receiving more support, regardless the type. Last, as was expected, having more non-resident children was negatively associated with receiving aid.

### 8.5 Discussion

Russia's traditional distribution of family roles results in stronger ties between mothers and their children than it does for fathers. These weakened ties wane even further after divorce, as Russian law practice usually results in children staying with their mothers (Khazova 2005). At the same time, lack of state provided social protection in Russia means that the elderly are highly reliant on personal savings and financial support from family members (Saxonberg and Sirovátka 2006). Taken together, it is possible that especially divorced elderly men are lacking in terms of
intergenerational support from their children. As the single elderly already make up one of the most impoverished groups in Russia, this problem becomes even more prominent. We examined this issue by comparing three partnership statuses (marriages, dissolved partnerships, and widowhood), further subdivided by gender in terms of intergenerational support.

Using data from the 2016 wave of Russia's "comprehensive monitoring of living conditions of the population"-survey, we used logistic regression models to look at the association between gender and the reception of four types of intergenerational support: (a) financial support, (b) material support, (c) help with housework, and (d) care during illness. We find that, as we hypothesized, divorced elderly men were the least likely to receive any of these four types of support from their non-resident children. While there was both a gender dimension -elderly men were less likely to receive support-, and a partnership dimension -divorcees receive less support than widow(er)s or married parents-, interaction effects between gender and partnership type were also highly significant. On average, elderly divorced men were between 15 and 20 percentage points less likely to receive any of the four types of support that were tested. These results are in line with Pezzin and Schone (1999), who found similar results for the United States, but we expand on this research firstly by comparing both to married parents and widowers, and secondly by looking at a wider range of types of intergenerational support.

The found gendered differences in receiving support are in line with the reciprocity-thesis, which suggests that men receive less care due to smaller parental investments during their offspring's childhood (Kalmijn 2007; Silverstein et al. 2006). In addition to that, we found that there are diminished returns of intergenerational transfers after divorce, which is in line with Silverstein et al. (2002). We also expand on quality of contact-research (Kaufman and Uhlenberg 1998; Silverstein and Bengtson 1997; Tomassini et al. 2004) by showing that there is an extra penalty for divorced fathers in terms of actual support.

Although our research points towards strong evidence of problematic disengagement between divorced elderly fathers and their children, there are several limitations. First, due to the cross-sectional nature of the survey, we are unable to make any causal claims. Although we include important covariates that might also explain the lack of support from children, there are still a host of unobserved factors that could also play a role, not in the least personality traits of both the respondents and their children. Our results should therefore be considered of a more descriptive, rather than causal nature. Furthermore, our four indicators of assistance are measured as incidence rather than intensity. We are therefore unable to say something about whether or not the provided assistance is sufficient.

Secondly, one of the major limitations of our study is that we have no (reliable) information on many individual characteristics of the caregiving children. Gender, income, educational attainment, health status, employment are all factors that play a role in how much care children are willing or able to give. Unfortunately we have no data on most of these, and can only proxy others. We resolve this as much as possible by using and interpreting known proxies such as parental education and income.

Third, since we only have information on socioeconomic indicators for the parents, controlling for financial status of the children is imperfect at best. Both income and educational attainment of the parent showed positive associations with receiving financial and material support, but negative or no association with housework or care during illness. Theoretically, this is what one would expect if these indicators are a proxy for the children's income level. The results we find here can however be due to either the prospect of inheritance for higher incomes or stress factors for lower incomes making it so that support for their parent(s) diminishes.

Next, while we have somewhat detailed information on partnership status, we were unable to distinguish whether or not the marital or cohabitational status of the respondents concerned first marriages or not. It is therefore possible that those who indicated they were married had actually been divorced before. While we were able to control for single person households, this control is imperfect. Future research needs to account for higher order marriages in order to obtain more accurate estimates. Due to the nature of the survey question on partnership status, our results are merely an approximation, since only one option could be chosen. Similarly, we could not identify whether or not those who were divorced or widowed, were now living with a new partner. It is possible that the need for help is lower for this group, provided that their partner is healthy. Again, we control as best as we can by adding both the indicator for living in a single-person household as well as by leaving out those who replied that they did not need a particular kind of help. This problem should, however, be addressed in further research with more detailed information.

As a final limitation, the divorced might make up a select group in terms of care needs. However, since those respondents who indicated that they didn't need that specific type of care were excluded from those models, we reduce the probability of this type of selection bias. Again, this measure is imperfect, as traditional social norms might hinder -especially men-in admitting they need assistance. Since it is plausible that mostly those who do not receive support would choose the option provided in the survey to say that they do not need assistance, the negative associations found for divorced men might actually still be underestimated.

Taken together, our results offer important insights in the precarious situation single elderly Russian men find themselves in and raises important questions for future research. Whether or not the associations found in this study are due to an actual penalty for divorced men, or merely the result of bias due to unobserved heterogeneity is a matter that needs to be addressed, preferably using more extensive longitudinal data. What the effect of this reduction in intergenerational support is on financial or subjective wellbeing, are important issues that require further attention. We only looked at the incidence of support. Future research into the extent of support is therefore necessary to completely understand the gravity of the issue. As an increasing group of single elderly men are among those with the highest poverty risks in Russia, our findings do point towards the need for either reform of divorce laws to strengthen the ties between fathers and children or expansion of social services to deal with the negative consequences of this deficiency of intergenerational support.

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# Chapter 9 <br> Coping Strategies of Migrant Ex-partners. Does Work, Family, or a New Partner Help You Through the Dark Times? 

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#### Abstract

This study focuses on financial consequences of a separation for migrant ex-partners. International literature on economic consequences has well documented the gender effects in the consequences of splitting up or the differences between former married and cohabiting couples. Building on these insights, this chapter focuses on the heterogeneity in couples in migration status and origin group. Using data from the Belgian Crossroads Bank of Social Security, we look at financial consequences after a break-up for European and non-European ex-partners with a migrant background. Using latent growth modelling for income trajectories of men and women after divorce, we show that migrant background plays a role to a certain extent. Gender effects were large and significant in all subgroups but contrary to our expectations, economically weaker groups show a more modest financial drawback compared to stronger groups. Coping strategies showed patterns that were expected except for returning to the parental home which had a negative influence on the income trajectory. The (weak) economic position of the parents in some migrant group explains this effect.


Keywords Divorce • Economic consequences • Migrants • Coping strategies •
Register data

### 9.1 Introduction

Despite considerable international differences, women have consistently been shown to be at the economic downside of a divorce (Andreß et al. 2006). Men lose little or no income after divorce while financial losses for women can be substantial. In order to cope with these economic adversities, women can either start working,

[^27]increase their working hours (or depend on benefits) or find a new partner (Jansen et al. 2009). We define divorce in this chapter as the dissolution of a household, irrespective of the legal procedure of divorce they might have to go through. As we focus on economic consequences, the moment two partners no longer live together, economies of scale cease to exist and the newly formed households have to deal with the consequences thereof and develop coping strategies in that respect. Although there might exist certain differences in financial consequences between the dissolution of a marriage and that of a legal separation, these are likely to take effect after the legal matters are settled.

As for the first strategy, a positive association between relationship dissolution and employment intensity can be expected. The pecuniary drivers behind this relationship are firstly the loss of household income and secondly the loss of economies of scale resulting from the establishment of smaller households (Couch et al. 2013). As for non-pecuniary benefits, paid employment supposedly acts as a substitute for some of the latent benefits (Stiglbauer and Batinic 2012), which are lost with the end of a relationship such as social contact, sense of self-worth and friendship.

On the partner market, mothers have lower repartnering opportunities due to their care burden. When taking care of (young) children, women are less available on the partner market but they are also far less attractive in the eyes of potential new partners. Alternatively, the increased financial burden for women increases the need for repartnering and therefore might intensify women's search for a new partner. We have shown in earlier research that repartnering outweighs the effect of labour market strategies, especially for mothers (Jansen et al. 2009).

A shortcoming in the existing literature on economic consequences of union dissolution is that most studies do not consider population heterogeneity in migration status and origin group. It is relevant to take this heterogeneity into account given the increasing diversity in most societies and the differences in family patterns, socio-economic position and family attitudes often found among migrant populations. Research indicates that the level of acceptance regarding union dissolution, and particularly divorce, is much lower among some migrant populations. This is particularly true in Moroccan and Turkish migrant communities where divorce is often associated to reduced family honour (Koelet et al. 2009a). If divorce results in the loss of emotional and financial support, it can have important repercussions for the economic consequences of divorce and the kind of coping strategies that are used. The loss of support from community and family-in-law is particularly impactful for migrants who immigrated in the context of marriage to a second generation migrant and often strongly rely on these informal support networks for information and aid.

In addition, non-European first and higher generation migrants in Belgium still experience profound disadvantages in the educational system and on the labour market which means that economic consequences can be harsher and employment as a coping strategy is more difficult to apply. This is particularly true for women with a migrant background. Traditional gender-role expectations and the vulnerable labour market position of these women often result in a higher prevalence of male breadwinner models in couples with a migrant background. Combined with the
generally younger ages at first union formation, human capital investments that can facilitate post-divorce employment may be limited among migrant women.

Taking migrant populations into account, this chapter looks at three different coping strategies for women: repartnering, returning to the parental home, and increasing one's labour market activities. We assess and compare the efficiency of these coping strategies in regaining their predivorce income levels.

### 9.2 Background

### 9.2.1 Financial Consequences and Relationship Dissolution

While there is considerable consensus in the literature that relationship dissolution is usually associated with a loss of financial wellbeing, the question of who suffers most or even if all involved do suffer, is still under much debate. The drop in financial resources is theoretically attributed to the loss of a partner's income on the one hand, and the loss of economies of scale on the other hand. Divided by gender, women are assumed to lose the most because they are more often working less or not at all, and the additional relative costs of a smaller household. Men are therefore assumed to suffer less, since they usually only incur losses in economies of scale (Couch et al. 2013). Children are more often left under the custody of the female ex-partner, which brings extra costs. On the other hand, men are more often required to pay child support, which decreases their disposable income.

Most previous studies indeed find that women suffer greater financial losses whether in household or per capita income, especially when children are involved (for an overview, see: Andreß et al. 2006). There are however some notable exceptions. McManus and DiPrete (2001) find that in the United States, only men whose pre-dissolution income consisted of less than one fifth of the partner's income, improve their financial situation. However, since the literature on the loss of income convincingly points towards greater losses for women, we firstly hypothesize that there is a gender gap where women lose more financially than men right after divorce independent of migrant background (hypothesis 1).

In addition to the initial gender gap in financial consequences after relationship dissolution, the question remains whether the loss in financial wellbeing is temporary or permanent. Using British data, Fisher and Low (2009) found that women tend to recover financially at around 9 years after divorce, although this is mainly driven by repartnering, rather than increased employment. For the weakest groups, government provided benefits did provide a cushion against the financial downturn. This can be explained firstly by the lower possible fall in household income, but also by eligibility to means-tested benefits. Since men and women with stronger labour market positions generally earn more as a dual-earner couple, the nominal drop in household income is usually larger. As they are less likely to be eligible for meanstested benefits, this would initially result in a proportionally larger drop as well.

However, they are theoretically more able to increase employment as well as more attractive on the partner market, so they are likely to recover more quickly. Conversely, certain allowance penalties may interfere with the attempt to raise wages for those with weaker labour market positions (Herbst and Kaplan 2016). van Damme (2010) shows that class membership matters and that the income position of the ex-spouse also determines economic consequences after the break-up. All in all, although the decline for economically weaker groups can be expected to be less steep than for the stronger groups, we also expect recovery to be slower.

### 9.2.2 Coping Strategies After a Break-Up

As outlined before, financial losses after relationship dissolution are incurred mainly through two channels: the loss of household income and the loss of economies of scale. The first may be compensated by increasing one's employment, while the second can be offset by for instance starting to live with a new partner or returning to live with parents (Jansen et al. 2009). Previous research has found that repartnering is the most important factor for women in recovering from the negative financial consequences of divorce (Fisher and Low 2009; Jansen et al. 2009). Especially for low-wage workers, additional household income from other adults has been shown to be an effective way of avoiding poverty (Gardiner and Millar 2006). We therefore hypothesize that repartnering increases income after a break-up (hypothesis 2 a ). Other than living with a new partner in order to compensate for the loss of economies of scale, it is also possible to return to the parental home. Under the assumption that incomes are pooled in this situation, we hypothesize that living with a parent increases the income after a breakup (hypothesis 2 b ).

Concerning increased employment, intuitively an increase in working hours should be associated with a rise in household income, even if this increase is modest and relatively lower than the impact of other coping strategies (Fisher and Low 2009; Jansen et al. 2009). This positive association with employment increase and household income constitutes our next hypothesis. Although intuitive, this association is not self-evident. For instance, increased employment could result in the loss of means-tested benefits. If those with lower possible earning profiles choose to increase their employment rather than receiving benefits, for instance to give a signal of self-sufficiency during custody battles, income could possibly decrease as a result. Previous research has shown that possibly for this reason, only a small percentage of low-wage workers use this strategy to avoid poverty (Gardiner and Millar 2006). However, on average, we hypothesise that the relationship is positive, regardless of background (hypothesis 2c).

### 9.2.3 Economic Consequences and Coping Strategies Among Ethnic Minorities

Research on financial consequences of union dissolution and coping strategies rarely takes into account population heterogeneity with respect to migration background and minority status. Nevertheless, previous studies have shown that couples with a migrant background differ from the majority population with respect to a number of relevant characteristics such as socio-economic position and reliance on informal support networks. Additionally, minority communities are often found to have differing views regarding union dissolution. The growth and diversification of migrant communities in most European countries provides us a with an opportunity to test whether income trajectories and coping strategies after union break-up differ by migrant background. Yet, we should also acknowledge that couples consisting of at least one partner with a migrant background are not a homogenous group. Some migrant populations in Belgium, such as Turkish and Moroccan groups, are characterized by relatively high levels of marriage migration in which a migrant of the second generation marries a partner from the country of origin (Dupont et al. 2017). Contrary to second and later generation migrants, first generation men and women that migrate in the context of marriage migration often lack country-specific human capital such as language, education and employment experience and need to depend heavily on their spouses' relatives and the broader migrant community for support (De Haas 2010; Hernández-Plaza et al. 2006). Given this heterogeneity by generation, we want to pay specific attention to couples resulting from marriage migration when formulating hypotheses on the economic consequences of union dissolution and coping strategies among ethnic minorities. In the next paragraphs, we will stipulate a number of moderating factors that lead us to suspect that migrant background and generation matter in post-relationship income trajectories after union dissolution.

Firstly, extensive research has shown that a large gap in socio-economic status persists between majority and minority populations in Europe. Both first and second generation migrants have been found to have consistently lower employment rates (Heath et al. 2008; Münz 2007). In the Belgian context, persons with a migrant background have been found to experience more difficulties in the educational system and in reaching stable employment and higher income levels (Baert et al. 2016; Corluy et al. 2015; Mussche et al. 2014; Phalet 2007). According to a study by Baert et al. (2016), the gap in education and employment between majority and minority groups is larger for women compared to men indicating that women with a migrant background occupy a particularly vulnerable position. The precarious position of women with a migrant background is amplified by earlier union formation among non-European women (Corijn and Lodewijckx 2009). Young ages at union formation can be accompanied with a more limited investment in human capital such as education and labour market experience when the couple is formed. These dynamics can contribute to the larger prevalence of the male breadwinner model often found among couples with a migrant background.

Secondly, informal support networks have been found to be of great importance for minority populations. This is certainly the case for recent immigrants who can lean on these support networks for emotional, social and material support (Boyd 1989; De Haas 2010). Informal support networks can also be of particular importance to later generation migrants who wish to marry a partner from the country of origin. In this case, networks provide important sources of information, logistic support and contacts with the country of origin (Lievens 1999). In addition to providing support, these local communities can also enforce cultural expectations regarding family arrangements and sanction behaviour that deviates from the cultural norms (Fernandez and Fogli 2009; Furtado et al. 2013). Especially among non-European minority groups, union dissolution and divorce is met with lower levels of acceptance. A study by Koelet et al. (2009b) shows that maintaining good family relationships and family honour is emphasized in Turkish and Moroccan communities and are threatened by divorce. In contexts where union dissolution is not approved, breaking up a relationship can result in a loss of social and economic support from informal contacts such as family or the broader community. Alternatively, informal networks could also provide a safety net in case of union dissolution and can not only provide emotional and social support but also soften the financial blow by providing opportunities to move in with relatives or increase labour market attachment. This idea is, however, contradicted by a study by Kleinepier et al. (2017) that shows a lower tendency to move back in with parents after union dissolution among second generation men and women compared to Dutch natives. In addition, the options to move in with parents or other relatives after union dissolution are likely to be very limited for first generation migrants.

Given the difficulties in obtaining a better socio-economic position and the possible loss of informal support networks, we expect more negative consequences of relationship dissolution among partners with a migrant background (hypothesis 3a). Since community support may be of greater importance for first generation migrants, investments in human capital in the country of origin is more limited and employment is more often unstable and in lower paid jobs, we expect the strongest financial consequences among men and women of the first generation who migrated in the context of marriage migration (hypothesis 3 b ). With respect to the income trajectory after relationship dissolution, we expect recovery to be less steep among ethnic minorities compared to Belgian men and women (hypothesis 4a). Again, this recovery is expected to the weakest among first generation men and women who migrated in the context of marriage migration (hypothesis 4b).

Regarding the efficiency of coping mechanisms, we do not expect a differing effect of increasing employment on the income trajectory after relationship dissolution (hypothesis 5a). Although increasing employment may be harder to achieve for men and women with a migrant background, the impact should not differ if they succeed. Similarly, we do not expect that repartnering has a differing impact on income trajectories after relationship dissolution for minority and majority populations (hypothesis 5 b). With regard to moving in with parents, we expect this strategy to be less efficient for migrant populations (hypothesis 5c). Given the more precari-
ous economic position and greater level of welfare dependency among persons with a migrant background, moving in with parents may not provide a financial advantage for men and women with a migrant background. This hypothesis is supported by a study by Shirahase and Raymo (2014) which finds that a sizeable group of single mothers lives with parents that fall below the poverty line and cannot provide financial support.

### 9.3 Data \& Methods

### 9.3.1 Data

In this study, we used Belgian data from the Data Warehouse on Labor Market and Social Security. This large-scale administrative dataset contains information from nearly all social security agencies in Belgium (e.g., National Office of Social Security, National Employment Office, and the National Institute for Health and Disability Insurance). A sample was drawn consisting of 46,050 households that had experienced the dissolution of their relationship in either 2007, 2008 or 2009. The sample consisted of 21,600 divorced couples and 24,450 formerly unmarried cohabitating couples. The sample was drawn on the (non)-migrant status of one (ex-)partner resulting in 30,000 Belgian sample members, 3000 European women, 6500 European men, 3000 non-European women and 3550 non-European men. In this study, "migrant status" is defined as being from a first, second (parents) or third (grand-parents) generation of migrants according to nationality and country of birth. For Belgian sample members, an additional requirement was added in that the partner of this respondent was also from a non-migrant Belgian background. Recent migration movements are not immediately registered in the Datawarehouse. Since the most recent data in the study was from 2013 ( $\mathrm{t}+4$ in the 2009-wave), we assume that we miss a minimum of recent migrants. Illegal migration is not covered by the administrative data and is therefore not included in the models.

No self-employed cases were kept in the analysis as the database contained no reliable information on their income. We also imposed a maximum age of 55 for inclusion in the sample, as older people might face more difficulties in applying the strategies to mitigate the economic consequences of union dissolution, and because they might experience declines in income due to retirement (or early retirement). With these restrictions taken into account, we used data from 42,898 women, of whom $47.3 \%$ were divorced and $52.7 \%$ had previously been living with a partner without being married. We used data from 39,119 men, of whom $48.2 \%$ were divorced and $51.8 \%$ had experienced the dissolution of an unmarried cohabitation. Data were available starting from 1998 but we included data in the models only 2 years before the dissolution up to 4 years after the end of the relationship. The longitudinal structure of the data is illustrated in Fig. 9.1.

Sample year


Fig. 9.1 Longitudinal data structure of the study. (Source: Data Warehouse on Labour Market and Social Security)

### 9.3.2 Measurements

The dependent variable was (gross) household income. This included earnings from employment, as well as public transfers because of disability and career interruption for all household members older than 16. Childcare transfers or partner alimony payments are not included in the income data. Since partner alimony is structurally reduced since the law of 2007, only the absence of childcare transfers limit our view on the total income. In the Belgian context, welfare provisions are based on prior labour market experience and household size. There are no specific public subsidies aimed at separated or divorced men and women and immigrants. However, previous studies have shown a higher level of welfare dependency among people with a migrant background (Carpentier et al. 2014). We used the modified equivalence scale developed by the Organization for Economic Cooperation and Development (Förster 2007) to adjust the household-income measures for household composition and household needs. Using this scale, the first member in the household was weighted with a factor of 1 , and other household members of 14 years of age or older with a factor of 0.5 . Children under 14 were weighted with a factor of 0.3 . This equivalence scale has been successfully applied in other studies examining the economic consequences of relationship dissolution (de Regt et al. 2012; van Damme et al. 2009). When modelling income, we need to take the economies of scale into account. All results were dependent on assumptions regarding these economies of scale and, more specifically, on the equivalence scale. For more information about this issue, see Jarvis and Jenkins (1999). We used a different equivalence scale (see: Andreß et al. 2006) as a robustness test and no changes in the results were observed. The income measure was adjusted for inflation. To make the income paths linear and to cope with the skewness of the data, we took the natural logarithm of the adjusted household income.

The following indicators for our independent variables on the three coping mechanisms were used. The increase (or decrease) in labour-market participation was measured categorically. The labour supply of the respondents in the years after the relationship dissolution was compared with their labour supply before the dissolution. People who did not have a paid job before the relationship ended and who started to work afterwards were considered as having increased their labour supply. People who had worked part-time and increased their employment to a fulltime
position after the dissolution were also considered as having increased their labourmarket participation. Having a parent in the home is self-explanatory. We do not know whether the ex-partners moved in to the home of their parents or in reverse that the parent moved in with the respondent. We only observe co-housing of the ex-partner with (at least) one parent. Re-partnering was defined as living with a new partner (married or not) after the dissolution of the union in question.

All models for Moroccan, Turkish and Southern European respondents contain three dummies representing the ethnic composition of the couple. The reference category in all models is a homogamous couple with both partners stemming from the same generation (and migration background). A first dummy concerns a couple where the man is from the second generation (or later) and the woman has migrated (first generation). The second dummy is the mirror of the first with a man migrating (first generation) and the woman being from second or later generation. The last two dummies concern mixed relationships with the third dummy having a male partner from another origin and the last dummy a female partner of another origin. This other origin could also be a Belgian background. The model of Belgian respondents contains only homogenous Belgian couples (since the mixed relationship are included in the Moroccan, Turkish and South European models).

In the analyses, we controlled for a number of background variables. These variables concerned the differences between formerly married and cohabiting partners, female relative share of the gross household income, welfare dependency, age (mean-centered plus age squared), being at work (time varying dummy) and working part-time (time varying dummy), region (Flanders, Wallonia, Brussels Capital Region), and household income (inflation corrected and OECD modified) 1 year before the dissolution. The control variable 'having young children in the household' measured the presence of children younger than 3 (time varying). All models were also estimated separately for men and women.

### 9.3.3 Analytical Strategy

The register data allowed us to use a longitudinal design. Cross-sectional data would not be sufficient for estimating the consequences of relationship dissolution. It would also be impossible to judge the influence of coping mechanisms after divorce when timing of divorce and subsequent income trajectories could not be used. Many people remarry or enter another cohabitation union after the dissolution of a relationship. It is possible that the group of people who remained single constituted a selective sub-sample of all people who had experienced the dissolution of a partnership. The same goes for the return to the parental home. In the past, we have used survey panel data for our analyses (Jansen et al. 2009) but issues of non-response and selective attrition from the initial sample are always present in these cases. Also the number of divorces is sometimes a worry when using survey data (e.g. Andreß et al. 2006) or the number of respondents with a migrant background, let alone the combination of these two. The register sample allows to include thousands of
relationship dissolutions in our models. This large sample has several advantages. First, the statistical power is greater, making parameter estimates more robust. Second, it allows us to examine the financial consequences of relationship dissolution in more detail (e.g., focusing on the dissolution of cohabitation unions among groups with a migrant background). As far as we know, no other study has ever combined financial trajectories after dissolution with a focus on respondents having a migrant background.

We use growth models (Singer and Willett 2003) to model the economic consequences of relationship dissolution. Longitudinal data can be seen as multileveldata, in which repeated measurements are nested within persons (Hox 2002). A growth model is a two-level model, with time (in years) on the first level and individual characteristics on the second. Using multilevel analysis is advantageous because it does not lean on the assumption of independence of observations and it gives more accurate estimates of the standard errors. Due to the sample size of the study, we only consider a significance level of $\mathrm{p}<0.001$.

In order to model the trajectory of income before, during, and after the break, we use three time variables (splines), referred to as "Pre-split-growth", "Split relation" and "Post-split growth". In the null random intercept model, i.e., the model without any covariates except for the time variables (see Table 9.2), the intercept estimates the income measure at time 0 , the year before the actual dissolution. At this time point the three period variables are assigned the value 0 . The estimate for the random slope associated with the pre-split growth indicates the linear trend in adjusted household income up until the year before the dissolution. Afterwards, this variable is assigned the value 0 . Analogous the slope associated with the third period assesses the pace of income recovery after partnership dissolution, which is assumed to evolve linearly with time. This variable is equal to 0 up to $t=2$ and is allowed to vary from $t=2$ onwards. Contrary to the first and third splines, the "split relation" variable is essentially a dummy variable that is assigned the value 1 at the event of separation. Because the other time variables are assigned the value 0 in the year of separation, this slope assesses the impact of the partnership dissolution on the adjusted income level. It continues to have the value 1 during the whole "recovery" period though. In this way, we model the instantaneous impact of repartnering, (re-) employment and other covariates on the needs-adjusted income level in the years following the separation (in the split-separation), as well as the impact of these covariates on the linear growth rate. In order to achieve this, we add interaction terms between the explanatory variables and period 2 and period 3 . Because we are not interested in explaining the pre-divorce growth, no interaction terms will be added with the pre-split growth.

The postulated model can be written as follows:
Level 1:adj $H$-income $=\pi_{0 i j}+\pi_{1 i j}$ Pre-split growth
$+\pi_{2 i j} \quad$ Split relation $+\pi_{3 i j} \quad$ Post - split $\quad$ growth $+\varepsilon_{i j k}$

$$
\begin{align*}
& \pi_{0 i j}=\gamma_{00 j}+\zeta_{0 i j} \\
& \pi_{1 i j}=\gamma_{10 j}+\zeta_{1 i j}  \tag{9.1}\\
& \pi_{2 i j}=\gamma_{20 j}+\zeta_{2 i j} \\
& \pi_{3 i j}=\gamma_{30 j}+\zeta_{3 i j}
\end{align*}
$$

The $\varepsilon$, $\zeta$ 's and $\xi$ 's represent respectively the within-person residual and the between-person within-country residuals. The error (co)variances are all estimated in the models. The so-called unconditional growth model will be extended by introducing time-constant as well as time-varying covariates into the level 1 and level 2 sub models.

### 9.4 Results

### 9.4.1 Descriptive

In Fig. 9.2, we show the distribution of mean adjusted household incomes for women across all groups in our sample. We do not show the graphs for men as these are relatively flat and differences between groups are limited. These results clearly reflect a drop in income after the dissolution that is consistent with earlier research. On average, the financial conditions of women with a migrant background are, overall, more negative compared to Belgian women. Belgian women earn more than women with a different background. Especially compared to women in a homogeneous migrant family, we see that the income trajectory on average is $11 \%$ higher for women in a homogenous Belgian couple. The relative income drop due to the break-up ( $\mathrm{t}-1$ to t ) is different across all groups and ranges between $16 \%$ (mixed relation with Moroccan man) and $29 \%$ (mixed relation with Moroccan woman).

The compositional differences between all four nationalities (from the respondents perspective) can be found in Table 9.1. As we take the year of sampling ( $\mathrm{t}-1$ ) in the table, we have an equal amount of men and women at the start of the trajectories. We see that the composition of the couples differs substantially between the Southern European couples on the one hand and the Moroccans and Turks on the other. For Southern European couples, homogeneity in the couple is hardly present. Most couples are of a mixed nature (predominantly with a Belgian partner). For Moroccan and Turkish couples, homogeneity within the couple prevails. For Turkish couples, most couple are also from the same generation. For both communities, new migration consists predominantly of men migrating to Belgium but the amount is still limited to one in three. In the Moroccan community, we see greater signs of


Fig. 9.2 Income trajectories of women, according to composition of the initial family

Table 9.1 Frequencies (column percentages) for main variables in year t-1

|  | Belgian | Southern <br> European | Moroccan | Turkish |
| :--- | :--- | :--- | :--- | :--- |
| N persons (t-1) | 72,340 | 6790 | 9420 | 4302 |
| N couple-years | 795,740 | 74,690 | 74,690 | 103,620 |
| Gender (t-1) | $36,168(50 \%)$ | $3395(50 \%)$ | $4710(50 \%)$ | $2151(50 \%)$ |
| Men | $36,172(50 \%)$ | $3395(50 \%)$ | $4710(50 \%)$ | $2151(50 \%)$ |
| Women | $49,214(68 \%)$ | $810(12 \%)$ | $2474(26 \%)$ | $1632(38 \%)$ |
| Ethnic composition $(\mathrm{t}-1)$ | $160(2 \%)$ | $2140(23 \%)$ | $1060(25 \%)$ |  |
| Homogamous: same gen. <br> Homogamous: woman $2 G$, <br> man 1G <br> Homogamous: man $2 G$, <br> woman 1G <br> Mixed: woman other origin <br> Mixed: man other origin | $11,924(16 \%)$ | $3046(45 \%)$ | $1942(21 \%)$ | $586(14 \%)$ |

Relative share of female income ( $\mathrm{t}-1$ )

| $0 \%$ | $10,076(14 \%)$ | $1098(16 \%)$ | $1758(19 \%)$ | $878(20 \%)$ |
| :--- | :--- | :--- | :--- | :--- |
| $1-19 \%$ | $6806(9 \%)$ | $722(11 \%)$ | $1156(12 \%)$ | $492(11 \%)$ |
| $20-39 \%$ | $17,985(25 \%)$ | $1576(23 \%)$ | $1852(20 \%)$ | $912(21 \%)$ |
| $40-59 \%$ | $21,408(30 \%)$ | $1826(27 \%)$ | $1712(18 \%)$ | $722(17 \%)$ |
| $60-79 \%$ | $5483(8 \%)$ | $602(9 \%)$ | $984(10 \%)$ | $368(9 \%)$ |
| $80-100 \%$ | $10,582(15 \%)$ | $966(14 \%)$ | $1958(21 \%)$ | $930(22 \%)$ |

Welfare state dependency ( $\mathrm{t}-1$ )

| $0 \%$ | $44,462(61 \%)$ | $3372(50 \%)$ | $2850(30 \%)$ | $1019(24 \%)$ |
| :--- | :--- | :--- | :--- | :--- |
| $1-19 \%$ | $17,284(24 \%)$ | $1606(24 \%)$ | $1786(19 \%)$ | $888(21 \%)$ |
| $20-39 \%$ | $4044(6 \%)$ | $606(9 \%)$ | $1138(12 \%)$ | $598(14 \%)$ |
| $40-59 \%$ | $1531(2 \%)$ | $287(4 \%)$ | $650(7 \%)$ | $362(8 \%)$ |
| $60-79 \%$ | $1035(1 \%)$ | $218(3 \%)$ | $561(6 \%)$ | $267(6 \%)$ |
| $80-100 \%$ | $3984(6 \%)$ | $701(10 \%)$ | $2435(26 \%)$ | $1168(27 \%)$ |
| Young children (<3y) in the HH <br> $(\mathrm{t}-1)$ | $39,844(55 \%)$ | $3754(55 \%)$ | $6782(72 \%)$ | $2292(53 \%)$ |
| Married couple | $34,978(48 \%)$ | $3338(49 \%)$ | $7014(74 \%)$ | $3422(80 \%)$ |
| Mean age (t-1) |  |  |  |  |
| Man | 36.7 | 36.3 | 33.2 | 33.2 |
| Woman | 34.6 | 34.2 | 30.2 | 30.9 |


| Region |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Flanders | $43,938(61 \%)$ | $1186(17 \%)$ | $2840(30 \%)$ | $2033(47 \%)$ |
| Brussels Capital Region | $3418(5 \%)$ | $792(12 \%)$ | $4554(48 \%)$ | $1108(26 \%)$ |
| Wallonia | $24,984(34 \%)$ | $4812(71 \%)$ | $2026(22 \%)$ | $1161(27 \%)$ |

integration as more couples are of a mixed nature, compared to the Turkish couples. Nevertheless, the amount of mixed couples is less than half that of the Southern European couples.

When considering the financial background of the former couples, we observe high levels of dual earner couples before the break-up. Only in the Moroccan and Turkish community, we see more single breadwinner models both of a male and a female kind. In one fifth of the couples, the woman earns more than $80 \%$ of the income. On the other hand, the dependency on welfare state transfers is much higher in these latter communities. This confirms the economic weaker position of Moroccan and Turkish households, which was already clear from Fig. 9.2. The Moroccan couples are slightly younger which might also explain the higher share of young children (below 3 years) in these couples. As shown in Table 9.1, almost half of all couples had young children in their households before the relationship dissolution. The regional distribution of Belgian couples follows the national population figures with about two thirds of Flemish couples and one third of French speaking couples. The other groups do not follow this pattern with Southern European couples living more in the Southern part of the country and Moroccan and Turkish couples living relatively more in the Capital region of Brussels. Lastly, we also have more married couples in the Turkish and Moroccan community. Even though we aimed for an equal division of married and cohabiting couples (which succeeded in the Belgian population), the number of cohabitations among Turks and Moroccans was too low to obtain equal shares of both types of relationships in this study.

### 9.4.2 Multivariate

Our descriptive results demonstrate that the financial drop in income is considerable for women across all groups but with clear observable differences within the female respondents. The differences with men (not shown in Fig. 9.2) are considerable and therefore, we decided to estimate all models separately for men and women. The null random intercept model (Table 9.2) disentangles the total variance in adjusted household income in a within-group (within individuals, over time) and a betweengroup variance component (between individuals). As shown in Table 9.2, the variance decomposition in all eight groups differs to a considerable degree. For Belgian $(63 \%(0.48 / 0.28+0.48))$ and Southern European men ( $62 \%$ ), a large proportion of the variance in the model is due to differences between individuals. For Moroccan ( $49 \%$ ) and Turkish ( $47 \%$ ) men, more differences are found in the income trajectory over time. Among women, the same pattern is found, even though at a lower level. Within each group, women show fewer differences between individuals than over time.

When looking at the parameters in Table 9.2, we observe clear differences in overall intercept indicating lower income levels among Moroccan and Turkish men and women, compared to the other two groups. All individuals also show a gradual increase in income (pre-split growth) before the break-up. This is due to promotions
Table 9.2 Null random intercept model with timing variables

| Fixed effects | Belgian |  | Southern European |  | Moroccan |  | Turkish |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Woman | Man | Woman | Man | Woman | Man | Woman | Man |
| Intercept | 7.39*** | 7.39*** | 7.22*** | 7.2*** | 6.87*** | 6.86*** | 6.70*** | 6.70*** |
| Pre-split growth | 0.04*** | 0.02*** | 0.039*** | 0.02*** | 0.06*** | 0.04*** | 0.04*** | 0.02*** |
| Split relation | $-0.22 * * *$ | $0.02 * * *$ | $-0.22 * * *$ | $0.05 * * *$ | $-0.15 * * *$ | 0.11*** | $-0.16 * * *$ | $0.13 * * *$ |
| Post-split growth | 0.03*** | 0.00 | 0.03 *** | 0.00 | 0.03*** | 0.00 | 0.04*** | -0.01 |
| Variance components |  |  |  |  |  |  |  |  |
| Variance within persons | 0.34*** | $0.28 * * *$ | 0.33*** | 0.28*** | 0.36*** | 0.35*** | 0.41*** | 0.40*** |
| Variance intercept | 0.42 *** | 0.48*** | 0.38*** | 0.46*** | 0.28*** | 0.33*** | 0.26*** | 0.36*** |
| Rho | 0.55 | 0.63 | 0.54 | 0.62 | 0.44 | 0.49 | 0.39 | 0.47 |
| -2 LOG Likelihood | 773,396 | 717,057 | 71,863 | 67,335 | 99,372 | 98,436 | 49,050 | 48,027 |
| AIC | 773,400 | 717,061 | 71,867 | 67,339 | 99,376 | 98,440 | 49,054 | 48,031 |
| BIC | 773,417 | 717,078 | 71,880 | 67,351 | 99,389 | 98,453 | 49,065 | 48,043 |

Source: Belgian Crossroads Bank for Social Security
Significance level: $* * * \mathrm{p}<.001$
or upward job mobility. Among all women, a significant drop in income is revealed by the "split relation" parameters. The year of the break-up, all women see their income decline. The loss of income however is larger for the strong, wealthier groups (Bel: -0.22 ; SEU: -0.22 ) compared to the economically weaker women (Mor: -0.15 ; Tur: -0.16 ). For men, the change in income is significant and positive. This shows the relative financial gain of men when breaking up a family. A reversed pattern is visible across all four groups with economically weaker men (Mor, Tur) showing higher financial gains than the higher income groups (Bel, Seu). At the same time, this gain income for men is accompanied with a non-significant income growth after the divorce. This implies that the male income does not increase above the gain they experienced with the break-up. Possibly, this has to do with the absence of any incentive to cope with the financial consequences of the break-up. This is different for women where we observe a positive and significant post-split income growth. There are no differences between the four groups. All growth parameters are around 0.03 in size (and highly significant).

The main purpose of the null random intercept model is to decompose the variance in the models and to look at the general estimated income trajectory. We can conclude from Table 9.2 that the earlier observed gender gap is visible in this sample across all groups: women lose financially when the household dissolves and men gain. In Table 9.3, we expand our analysis with more detail to the composition of the migrant groups in our sample. The reference category in Table 9.3 is a homogenous couple with two partners from the same generation (2nd or 3rd or a combination of 2 nd and 3 rd ). We look at both homogenous couples in which either the man of the woman is a first generation migrant, and to mixed couples in which either the man or the woman is from the group at stake (Seu, Mor, Tur). In the model, the composition of the couple is adopted as a main effect but also interaction effects with timing variables (split and post-growth) are included. These interaction effects enable us to see whether the overall financial trajectory (as described in Table 9.2) is different for these couples. As we are not interested in income trajectories, independent from life course events, we did not include interaction effects with the prebreak income trajectory.

The main effects of couple composition indicate that mixed relationships are not different from homogenous later generation couples. As these mixed couples are also not significantly different from later generation respondents, we can assume that the combination of backgrounds itself plays no role in post break-up dynamics. This is only weakly supported. Only in the Moroccan and to a lesser degree the Turkish community, couples with a migrating partner have different income trajectories. Moroccan and Turkish male income trajectories are lower ( $-0.12 /-0.13$ ) when they have a migrating partner (and vice versa among the women: 0.09/0.02). When the couple has a migrating man, results are less conclusive. We see a higher income for male Turkish migrants (0.09) and a lower income for second generation Moroccan women (-0.09).

The influences of couple composition on the trajectories over time are rather limited. Again, only effects are found on the income change at the moment of the break-up (split relation) in homogenous couples with a migrating partner. For
Table 9.3 Multilevel model of change for income trajectories before and after relationship break-up, men and women; Belgian couples and couples with at least one Southern European, Moroccan or Turkish partner

| M | BEL |  | SEU |  | MOR |  | TUR |  | W | BEL |  | SEU |  | MOR |  | TUR |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Intercept | 6.60 | *** | 6.27 | *** | 5.85 | *** | 6.38 | *** |  | 6.54 | *** | 6.48 | *** | 6.08 | *** | 6.30 | *** |
| Pre-split growth | 0.03 | *** | 0.03 | *** | 0.05 | *** | 0.03 | *** |  | 0.04 | *** | 0.04 | *** | 0.06 | *** | 0.04 | *** |
| Split relationship | 0.02 | *** | 0.03 |  | 0.08 | *** | 0.11 | *** |  | -0.21 | *** | -0.20 | *** | -0.17 | *** | -0.13 | *** |
| Post-split growth | 0.01 | *** | 0.01 |  | 0.00 |  | 0.01 |  |  | 0.03 | *** | 0.03 | *** | 0.03 | *** | 0.04 | *** |
| Composition couple |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Homogam. M 2G/W 1G |  |  | -0.12 |  | -0.12 | *** | -0.13 | *** |  |  |  | -0.04 |  | 0.09 | *** | 0.02 |  |
| Homogam. M 1G/W 2G |  |  | -0.02 |  | 0.03 |  | 0.09 | *** |  |  |  | 0.04 |  | -0.09 | *** | 0.00 |  |
| Mixed WOM oth orig |  |  | -0.05 |  | 0.04 |  | 0.06 |  |  |  |  | -0.07 |  | 0.00 |  | -0.07 |  |
| Mixed MAN oth orig |  |  | -0.02 |  | 0.01 |  | -0.01 |  |  |  |  | -0.03 |  | -0.03 |  | -0.02 |  |

Ref: Homogam. M2G/W2G
Interaction with Split rel.

Model controlled for Age, $\mathrm{Age}^{2}$, Married (ref cohab), Female share of gross household income, Share of welfare state dependency, Region in Belgium, Being at work (ref not at work), Working part time, Age youngest child, and pre-break adjusted household income
Source: Belgian Crossroads Bank for Social Security
Significance level: $* * *$ p $<.001$

Moroccan and Turkish men with a migrating partner, the overall income growth at the break-up (Mor: 0.08; Tur: 0.11) increases sharply when their partner leaves the household. For Moroccan men, the gain in income by splitting up is $0.27(0.08+0.19)$ and for Turkish men $0.29(0.11+0.18)$. For women who have a migrating partner, the income fall when breaking up is softened. For Moroccan women with a migrating partner, the initial income drop of -0.17 , is reduced to $0.03(-0.17+0.14)$. For Turkish women, we see the same effect though non-significant. Their income drop is reduced from -0.13 to $-0.08(-0.13+0.05)$. The changes in post-split growth are all non-significant. That means that the initial recovery trajectories after the break-up remain identical when controlled for couple composition.

In the next step of the analysis, we examined differences in the effectiveness of strategies for moderating the economic consequences of union dissolution for divorced and formerly cohabiting men and women. Again, we introduced the main effects of three coping mechanisms (increasing one's work hours, repartnering and living with a parent). Furthermore, we interacted the coping strategies with the postgrowth timing variables. Interacting the strategies with the split variables turned out to be non-significant for all effects (due to the fact that the coping strategies are usually applied after the break-up).

A first striking result concerns the effects of composition of the couples that were discussed previously. When controlling for coping strategies, all compositional effects of couples disappear. In order to maintain the comparability with Table 9.3, we decided to keep these effects in the model. The main effects of the three coping strategies show that increasing one's work does not significantly influence the overall income trajectory. This is counterintuitive since increasing work hours implies more income. Repartnering does increase the income, especially among the women. Having a parent in the home gives mixed results but shows a decrease in income for men and women. Especially in Moroccan and Turkish former families the switch to the parental home has a large impact in the models. Since first generation migrants are generally unable to move back in with parents, these results mainly reflect the effect of moving into the parental home for second and later generation migrants. Finally the results for repartnering show that a new partner is beneficial for women. Across all four groups, large and significant increases are found of a beneficial effect on women's income trajectory.

When interacting the coping strategies with the post-growth income trajectory, we find a positive effect of increasing one's labour market attachment but only among Belgian men and women. When parents become involved, only Belgian and Southern European men experience a negative pressure on their post break-up trajectory. The significant main effects among Moroccan and Turkish men and women are not reinforced, nor hindered in an interaction with the post growth trajectory. Finally, we see overall negative interaction terms of repartnering on income growth across all four groups and for both genders. For men, this means that the nonexisting effect of repartnering implies that the new partner negatively influences their income trajectory over time. For women, we found large positive main effects on the general income level which seem to be tempered by a lowering post-growth trajectory of income after the break-up. The positive main effects however by far
outweigh the negative compensation effects in the interaction with the postgrowth term.

In order to limit the size of the tables, we did not include the parameters of our control variables. All control variables behaved in the expected direction. The models in Table 9.4 show a positive effect for age (older people have higher incomes). Married men have a lower income than cohabiting men. For women, this effect is only found among Moroccan and Turkish couples. Belgian and Southern European married women show no differences with cohabiters. A higher share of the woman's income in the gross household income decreases the overall income of men, an effect not found among the women. Welfare dependence is proxy for economic deprivation as all groups and both genders show significant lower income trajectories when the family is more dependent on welfare state transfers. Region in Belgium does have no effect on the income trajectory and having young children in the household increases the income level (due to child care benefits). Also labour market attachment gives the expected results with being at work having a positive effect on the overall income and working part-time showing negative effects. The overall adjusted household income before the break also positively influences the income trajectory of the former partners.

### 9.5 Discussion

In this study we extended our previous studies on the economic consequences of divorce (de Regt et al. 2012; Jansen et al. 2009) to a sample that contains sufficient heterogeneity on backgrounds in terms of country of birth and nationality. We asked if migration background plays a role in coping with financial consequences after a relation break-up.

We started our analytical journey with a general hypothesis, already tested in our earlier work: is the income trajectory different for men and women? As expected, we (again) find that women suffer more severe financial losses after a break-up than men. The adjusted household income drops significantly across all female groups in our sample. For men, we see a non-significant drop or even an increase in adjusted household income. This overall result proves that, despite the evolution in Belgium from a single breadwinner model to a dual earner model, the outcomes of life course events are still gendered.

The next step in the analysis was to focus on the financial consequences of former partners, according to their migrant background. Because ex-partners with a migrant background face more severe economic circumstances, we hypothesized that this economic weaker position would entail a 'penalty' when the household would dissolve (hypothesis 3a). This hypothesis was not confirmed. Ex-partners with a migrant background do not experience immediate stronger financial consequences. Probably, the very fact that they start off from a more disadvantaged socioeconomic position could explain the smaller drop in income afterwards: if you have less, you lose less. Therefore, we find that both Belgian and Southern European
Table 9.4 Parameter estimates for main models for Belgian couples and couples with at least one Southern European, Moroccan or Turkish partner

| M | BEL |  | SEU |  | MAR |  | TUR |  | W | BEL |  | SEU |  | MAR |  | TUR |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Intercept | 6.22 | *** | 6.07 | *** | 5.37 | *** | 6.14 | *** |  | 6.26 | *** | 6.44 | *** | 5.64 | *** | 6.13 | *** |
| Pre-split growth | 0.02 | *** | 0.02 | *** | 0.03 | *** | 0.02 | *** |  | 0.03 | *** | 0.03 | *** | 0.04 | *** | 0.02 | *** |
| Split cohabitation | 0.72 | *** | 0.97 | *** | 1.19 | *** | 0.52 |  |  | -9.98 |  | 0.43 |  | 0.97 | *** | 0.96 | *** |
| Post-split growth | 0.06 | *** | 0.14 |  | 0.25 | *** | 0.23 |  |  | -0.04 |  | 0.01 |  | 0.25 | *** | 0.12 |  |
| Composition couple |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Homogam. M 2G/W 1G |  |  | -0.10 |  | 0.01 |  | -0.04 |  |  |  |  | -0.11 |  | 0.00 |  | -0.03 |  |
| Homogam. M 1G/W 2G |  |  | -0.02 |  | -0.03 |  | 0.06 |  |  |  |  | 0.00 |  | 0.01 |  | 0.06 |  |
| Mixed WOM oth orig |  |  | -0.06 |  | 0.03 |  | 0.05 |  |  |  |  | -0.02 |  | 0.02 |  | -0.04 |  |
| Mixed MAN oth orig |  |  | -0.01 |  | -0.03 |  | 0.00 |  |  |  |  | -0.01 |  | 0.01 |  | -0.04 |  |
| Ref: Homogam. M2G/W2G |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Interaction with Split rel. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Homogam. M 2G/W 1G |  |  | 0.18 |  | 0.01 |  | 0.04 |  |  |  |  | 0.11 |  | 0.05 |  | 0.02 |  |
| Homogam. M 1G/W 2G |  |  | 0.00 |  | 0.04 |  | -0.01 |  |  |  |  | -0.02 |  | 0.02 |  | -0.05 |  |
| Mixed WOM oth orig |  |  | 0.11 |  | 0.01 |  | -0.03 |  |  |  |  | 0.06 |  | -0.01 |  | 0.01 |  |
| Mixed MAN oth orig |  |  | 0.00 |  | -0.01 |  | -0.02 |  |  |  |  | 0.02 |  | 0.02 |  | 0.05 |  |
| Interaction with Post growth |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Homogam. M 2G/W 1G |  |  | -0.01 |  | -0.01 |  | 0.00 |  |  |  |  | 0.00 |  | -0.01 |  | -0.01 |  |
| Homogam. M 1G/W 2G |  |  | 0.00 |  | 0.00 |  | -0.01 |  |  |  |  | 0.02 |  | -0.01 |  | -0.01 |  |
| Mixed WOM oth orig |  |  | -0.01 |  | 0.00 |  | -0.01 |  |  |  |  | -0.01 |  | -0.01 |  | 0.00 |  |
| Mixed MAN oth orig |  |  | 0.00 |  | 0.01 |  | -0.02 |  |  |  |  | 0.00 |  | -0.01 |  | -0.02 |  |

Coping strategies

| Coping strategies |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Increasing work | -0.01 |  | -0.03 |  | 0.01 |  | 0.05 |  | -0.04 | *** | -0.02 |  | 0.00 |  | -0.02 |  |
| Parent in home | -0.01 |  | -0.05 | *** | -0.17 | *** | -0.10 | *** | -0.03 | *** | -0.07 | *** | -0.17 | *** | -0.22 | *** |
| Repartnering | 0.05 | *** | 0.04 |  | -0.02 |  | 0.03 |  | 0.32 | *** | 0.30 | *** | 0.18 | *** | 0.19 | *** |
| Increasing work | 0.01 | *** | 0.01 |  | 0.00 |  | 0.00 |  | 0.01 | *** | 0.00 |  | 0.00 |  | 0.00 |  |
| Parent in home | -0.03 | *** | -0.03 | *** | -0.03 | *** | -0.02 |  | 0.00 |  | 0.00 |  | 0.00 |  | 0.01 |  |
| Repartnering | -0.02 | *** | -0.02 | *** | -0.04 | *** | -0.05 | *** | -0.02 | *** | -0.02 | *** | -0.03 | *** | -0.04 | *** |

Model controlled for Age, Age ${ }^{2}$, Married (ref cohab), Female share of household income, Share of welfare state dependency, Region in Belgium, Being at work (ref not at work), Working part time, Age youngest child, and pre-break household income. All control variables are also interacted with the time variables "splits relationship" and "post-split growth"
Source: Belgian Crossroads Bank for Social Security Significance level: $* * * \mathrm{p}<.001$
women (both stronger economic groups) lose more compared to Turkish and Moroccan women. When extending this analysis to the composition of the couple, we expected that the migration history would also matter in this respect. We hypothesised that men and women of the first generation who migrated in the context of marriage migration would face more detrimental losses compared to later generation couples or mixed couple (hypothesis 3b). Also this hypothesis was not confirmed: first generation men and women do not experience stronger losses. Again the argument that having a lower income makes you lose less applies. However, their second generation partner (the partner that married a man or woman from the country of origin) experiences markedly weaker financial consequences compared to partners that did not marry a first generation migrant. The financial gains of union dissolution for Turkish and Moroccan men that married a first generation partner are larger compared to Turkish and Moroccan men that had a partner from the same generation. The losses from union dissolution for Moroccan women who married a first generation man were also more limited compared to Moroccan women that were partnered with a partner from the same generation. Hence, these results indicate that union dissolution is more beneficial for partners that were in a union with a partner in a particularly vulnerable socio-economic position. The fact that the first generation partner in a couple formed by marriage migration does not experience stronger financial losses could possibly be explained by the financial support they receive from the migrant community.

Comparable to the drop in income, our hypotheses on the post-dissolution income trajectory (hypotheses 4 a and 4 b ) are also not confirmed. The post-split growth is similar for all migrant couples irrespective of migrant background. These results indicate that, even though migrant populations are characterised by a weaker socio-economic position and specific community dynamics, these differences do not impact the financial recovery from union dissolution. When regarding couple composition, we also do not find any differences in post-divorce growth. It seems that the stronger partner in a mixed 1st and later generation household does not significantly profit from the exit of the economically weaker first generation partner in terms of post-dissolution income growth.

The analysis of the financial trajectory after a break-up was the first step in our analysis. The second research question in this chapter concerns the coping strategies of former partners after the break-up. In what way do people try to cope with the financial loss of income due to their break-up. We identified and tested three possible coping strategies: increasing employment, repartnering and returning to the parental home. Each time, we first tested a general hypothesis irrespective of migration background (H2a,b,c) and next we tested the same hypotheses again but focussed specifically on the migration background of the former partners (H5a,b,c).

Our results show that increasing one's employment is an effective coping strategy and significantly improves the post break-up income trajectory for former partners (Hypothesis 2a). But labour market strategies are clearly influenced by the background of the former spouses. We see that Belgian men and women are benefitting more from this strategy while the same results are not found among men and women with a migrant background (Hypothesis 5a). Given that men and women with a migrant background are more often found in unstable employment and jobs
characterized by lower wages and short-term contracts, increasing one's employment may not be an effective way to help post break-up financial recovery. It is striking that the Southern European men and women are also not benefitting from this strategy as they are better off economically compared to the Moroccan and Turkish men and women.

When a former spouse starts living together with a new partner (whether married or unmarried) we expected an increase in the financial position for women and a decrease for men (hypothesis 2b). This general effect is found in our data and it confirms the weaker income position of women who make men's adjusted household income decrease when moving in while her adjusted income increases. When looking at migration background, we see that the effects of women go in the expected direction with an increase across all groups in women's relative income. Hypothesis 5b is also confirmed as we find no differences across our four groups. For men, we find no effect on the general income trajectory (main effect) but we do find a negative post-income trajectory. Since the overall effect is negative, we also consider hypothesis 5 b for men to be confirmed.

A last possibility for former partners is to return to the parental home (sometimes called the boomerang strategy). When considering this strategy, we expected a positive overall effect (hypothesis 2c) with more limited gains among migrant groups (hypothesis 5c). Regarding the overall effect, our hypothesis is not confirmed. Instead of a positive effect, we found a negative effect of the boomerang strategy: living again with one's parents lowers the adjusted household income for all groups. With respect to migrant groups, our hypothesis is confirmed since the negative effects are especially strong among Turkish and Moroccan men and women. The assumption behind our hypothesized positive overall effect was that parents are able to support the ex-partners because they provide a (financially) stable environment. A possible explanation of the consistent opposite effects is that moving in with parents is more common among men and women who are in a very vulnerable socioeconomic position. If their parents are also characterized by a more vulnerable position such as unemployment, unstable labour market attachment or low wages, this implies a financial setback when the income then has to be divided between more household members. Given the economically precarious position of immigrants and their children in Belgium, it makes sense that the strategy of moving in with parents is less efficient for ex-partners with a migrant background. Since the capability of moving back in with parents is very limited for first generation migrants, the effect for migrant groups most likely reflects the efficiency of moving back in with parents as a coping strategy for second or later generation migrants.

### 9.6 Conclusion

In this chapter, we extended previous studies on the financial consequences of divorce and separation with a focus on migration background. Previous studies have always assumed a homogeneity in the background of former partners while focus-
sing on gender effects. While keeping the gender perspective, we extend this literature by taking migration background and migration history into account.

The results show that financial consequences still show a highly gendered pattern with men gaining (in relative terms) from the break-up and women losing income. We also found differences according to migration background but not in the direction we expected. Weaker economic migrant groups such as Moroccan and Turkish men and women experience a lower financial drop in income compared to stronger groups (Belgian and Southern European). Only within the migration population, couples with a 1st generation partner show significant differences in economic consequences. Especially the former partner of a first generation migrant is better off after the break-up.

The relative positive outcome among economically weaker groups could stem from two sources. On the one hand, the generous Belgian welfare provisions might succeed in protecting these former partners and keep them out of poverty. On the other hand, the small drop in income might be less reassuring than a regression parameter might seem to suggest. When in an economic weak position any fall in income, even the slightest one, might result in ending up in poverty or aggravating an already existent poverty situation. As such, the advantaged comparison with stronger Belgian and Southern European groups could blur the daily difficulties among these Moroccan and Turkish men and women.

When considering coping strategies, all effects concerning labour market position and repartnering turned out as expected. Only the return to the parental home showed a negative outcome instead of the expected gain in relative income position. Again, the economic background of migrant families explains, to a large extent, the direction of these effects. When working in an economic frail and uncertain situation, increasing one's working hours or changing jobs is not a guarantee on a better income position. In some cases, increasing working hours could imply losing one's benefits which lowers instead of increases the total household income. Also the boomerang strategy of returning to the parental home is no guarantee to economic gains. When your parents are also in a weak financial position, increasing the total number of household members and dividing the scarce income among them results in a worse situation. Of course, we are aware that this chapter only looks at the financial position of the household. Returning to the parental home has other benefits to the former partner. The parental household gives social support and warmth or could also provide child care. This could help the former partner in continuing to work and recovering financially on the long term even though in the short term our models show a decrease in income.

Our study has some inevitable limitations. First, the composition of the households made us make choices to place individuals in certain families while leaving them out in other categories (e.g. the mixed couples). As a consequence, we could include between-group differences in our analyses. Groups are compared across models but not in a formal statistical manner due to this potential overlap across couples. Second, we only consider the coping strategy of increasing one's labour supply as an increase compared to the year previous to the break-up. This implies that we ignore potential anticipation effects as ex-partners (predominantly women)
might increase their labour market attachment longer before the actual break-up (Poortman 2005; Thielemans and Mortelmans 2017). Third and most importantly, the register data did not allow us to control for educational attainment or job status. Since these are crucial components of one's SES, this is an important blind spot in our analyses. Even though the registers do give us an impressive statistical power, missing these indicators is a considerable handicap.

Given our ever diversifying society characterised by globalisation, geographical mobility and inter-ethnic relationships, considering migration background in family studies grows in importance. As our societies diversify, we need to grasp the mechanisms behind the social and economic behaviour of people with a migrant background. As others have shown, these groups are characterised by a distinct combination of attitudes toward gender roles and family transitions, socioeconomic opportunities and links to the communities of residence and origin. Taking migrant background into account when uncovering causes and consequences of union dissolution helps us gain insight in the specific cultural and economic mechanisms underlying relationship break-ups. In this chapter, we have shown that the heterogeneity in economic power is crucial when studying processes of financial loss and recovery. Migrant background in itself is often not at the core of how income trajectories evolve but their economic background does play a crucial part in the explanatory models we have tested. In addition, we showed how migration generations and their parental homes have a differing influence in how people with a migrant background see their income after a break-up evolve. This complex interplay of coping mechanisms are important lessons for academics but also for policy makers focussing on life course events and economic frailty or poverty.

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# Chapter 10 <br> Multi-dimensional Subjective Wellbeing and Lone Parenthood Following Divorce in Flanders (Northern Belgium) 

Sam Jenkinson, Hideko Matsuo, and Koenraad Matthys


#### Abstract

This study contributes to the literature on the relationship between subjective wellbeing (SWB), divorce, gender, and lone parenthood. We use the cross sectional Divorce in Flanders Survey (2009), comparing divorced, single parents to married parents, and also to each other across genders. Our results confirm the lower levels of SWB reported by divorced, single parents. This is true across multiple dimensions of SWB, including measures of life satisfaction, emotional wellbeing and vitality. Our results highlight the lower wellbeing reported by divorced, single parents in relation to the residential status of children below the age of 18 . This is the case for both mothers and fathers, but fathers with non-residential children below 18 reported lower life satisfaction, whereas for the equivalent mothers, emotional wellbeing was diminished. We find little evidence of gender differences between lone mothers and fathers who report residential children. This suggests that the "intensive motherhood" hypothesis, which predicts that parenting may affect the SWB of mothers more negatively than fathers, may operate differently in the case of single vs. married parents.


Keywords Divorce • Multidimensional subjective wellbeing • Gender • Lone parenting

### 10.1 Introduction

Divorced, single parents report lower levels of subjective wellbeing (SWB) than parents who are partnered. This pattern, observed repeatedly in the research literature, may be grounded in the double burden of parenting and work experienced by divorced, single parents. Generally these parents have lower economic and parenting resources, including time and energy, all of which can impact the quality of their

[^28]lives. Important intergenerational implications may follow to the extent that their situation negatively influences the wellbeing, and socio-economic and psychological outcomes of their children in comparison to children from families with more parenting resources (Amato 2000, 2001; Amato and Keith 1991).

Previous research findings on the relationships between partnership, parenting, gender and the different dimensions of SWB are quite nuanced. Parenting alone following divorce may result in a greater difficulty combining work and family life and an increased risk of poverty, which for women is both higher and more likely to persist until re-partnership (Brady and Burroway 2012; Jansen et al. 2009; Lewin and Stier 2018; Maldonado and Nieuwenhuis 2015). Single parenthood has been linked to a higher likelihood of illness and depression for women in the post-divorce period, and also later in life (Baronowska-Rataj et al. 2014; Cairney et al. 2006; Cooper et al. 2008; Meadows 2009). In addition, men generally experience greater declines in overall health, subjective wellbeing, measures of satisfaction with family life and greater feelings of loneliness and isolation following a divorce than do women, although this pattern is not universal (Dykstra and Fokkema 2007; Leopold 2018; Leopold and Kalmijn 2016; Shor et al. 2012; Stack and Eshleman 1998). Both men and women, therefore, experience the impact of divorce, but in different ways over various aspects of wellbeing. What is needed, however, is an approach which examines comparisons of gender, partnership, parenting and also different measures of SWB.

Our study takes this multi-dimensional approach, by comparing male and female divorcees with each other and with married parents. The main research question guiding this analysis concerns how divorced, single parents differ in terms of SWB when compared to married parents and taking into account the residential status of children under 18. The contribution of this research is twofold. Firstly, by incorporating multiple dimensions of SWB, including life satisfaction, emotional wellbeing, and vitality, we overcome the tendency in prior studies to focus on single item measures. This can mask important gendered associations with multidimensional SWB. Secondly, we provide compelling evidence of how SWB varies in relation to partnership and parenthood status, including differences between residential and non-residential children, using different dimensions of SWB following a divorce. ${ }^{1}$

### 10.2 Research Background

### 10.2.1 Multi-dimensional Measures of Subjective Wellbeing

Recent debates concerning subjective wellbeing have emphasised the need to broaden the focus beyond single item measures of happiness and life satisfaction (Michaelson et al. 2009). The argument is that prior studies have adopted the same

[^29]few measures, which may be too theoretically narrow. We define subjective wellbeing in line with the OECD guidelines as "Good mental states, including all of the various evaluations, positive and negative, that people make of their lives and the affective reactions of people to their experiences" (OECD 2013, p. 10). This definition draws predominantly from the work of Diener et al. (2006) and also Thomson and Marks (2008). It is intentionally broad, in order to include all dimensions of subjective wellbeing.

These dimensions include: evaluative SWB (cognitive), hedonic SWB (affective) and eudemonia (flourishing) (Clark and Senik 2011; Thomson and Marks 2008). We define life evaluation, or life satisfaction, as "a reflective assessment on a person's life, or some specific aspect of it" (OECD 2013, p. 10). Affect is "a person's feelings or emotional states, typically measured with reference to a particular point in time" (OECD 2013, p. 10) and eudemonia "a sense of meaning and purpose in life, or good psychological functioning" (OECD 2013, p. 10).

### 10.2.2 Multi-dimensional Subjective Wellbeing, Gender and Partnership Status

### 10.2.2.1 Life Satisfaction

One of our measures is a typical cognitive measure of SWB, life satisfaction. The findings from research regarding the association between life satisfaction, gender, and divorce are nuanced. Studies have shown that generally, women are more likely to report lower levels of life satisfaction than men (Blanchflower and Oswald 2004; Herbst and Ifcher 2012; Stevenson and Wolfers 2009), while in studies on life satisfaction following divorce, men have been shown to be more negatively affected than women (Andress and Bröckel 2007; Leopold 2018). This decline for men occurs at the same time as deteriorations in overall health, subjective wellbeing, and measures of satisfaction with family life. However, this decline is temporary, with levels of life satisfaction usually recovering to pre-divorce levels within 5 years and on par with those of divorced women (Leopold 2018).

One of the reasons for this gender difference may be that women are better at adapting to their post-divorce circumstances (Brinig and Allen 2000; Kalmijn and Poortman 2006; Leopold 2018). Studies examining SWB and divorce have shown that women appear to emotionally accept the end of a marriage at an earlier stage. This is reflected in the greater likelihood of women to initiate the divorce proceedings. Compared to men, women are more likely to experience greater psychological upheaval in the period leading up to a divorce, rather than its aftermath.

Hypothesis 1: Given that both men and women experience declines in life satisfaction following a divorce, we expect those who are divorced and remaining single to report lower levels of life satisfaction than those who are married. In addition, we expect this gap to be greater for divorced, single men.

### 10.2.2.2 Emotional Wellbeing

The measure of hedonic SWB we use in this study is emotional wellbeing. No studies that we are aware of have examined the relationship between emotional wellbeing specifically and partnership status. Studies using hedonic measures of SWB, such as happiness, have generally found that being partnered has a positive contribution (Dolan et al. 2008; Kohler et al. 2005). In these studies, those who are married had higher levels of happiness than those who are divorced and/or single.

With regards to gender differences and hedonic measures of SWB, research has shown that men and women usually report comparable levels on items similar to emotional wellbeing (Dolan et al. 2008; Louis and Zhao 2002). However, this was not the case for some hedonic measures of SWB, such as affect, that uses contrasting measures of the frequency of positive vs negative feelings. Studies using these measures have generally shown more extreme associations for women on individual items, which are balanced out in overall or composite measures (Comstock and Helsing 1976; Fujita et al. 1991; Gurin et al. 1960).

Hypothesis 2: We expect those who are divorced and also single to have lower emotional wellbeing than those who are married. In addition, given the evidence concerning hedonic measures of SWB similar to emotional wellbeing, we expect no gender differences concerning measures of emotional wellbeing.

### 10.2.2.3 Vitality

We examine eudemonic SWB with a measure of vitality. To our knowledge, there are no studies that have closely examined vitality in relation to gender and partnership status. Previous studies using eudemonic measures similar to vitality to examine the impact of gender and partnership status have produced differing results across different measures.

Vitality is a composite measure, which includes one item of self-rated health (SRH). Details of other items included can be seen in Table 10.1. Studies of gendered differences in SRH have shown that women typically are more likely to report lower SRH than men (Jylhä et al. 1998; McFadden et al. 2009; Oksuzyan et al. 2010; Wu et al. 2012). Related concepts include physical activity and capability. Studies looking at differences in levels of movement found men to be much more active than women, with implications for health and vitality ( 7.7 h per week vs 4.0 ) (Hull et al. 2010). In contrast to this, more recent research examining self-rated health within the labour market has found that men are more likely to report lower SRH than women (Taloyan et al. 2015). Furthermore, Ryff (2014) reviewed the correlates of several eudemonia measures that include SRH, and found that those who are single, or experienced a divorce, reported lower SWB than those who did not and, additionally, that this lower SWB was more pronounced for women than for men.

Table 10.1 Subjective wellbeing: item questions

| Question | Scale | Meaning |
| :--- | :--- | :--- |
| Life satisfaction (cognitive) |  | $0-10$ |
| On the whole, how satisfied are you with <br> your life? | $0=$ extremely unsatisfied <br> $10=$ extremely satisfied |  |
| Emotional wellbeing (hedonic) |  |  |
| How often have you felt...during the last week? |  | $1-4$ |
| Happy | $1-4$ | $1=$ rarely $4=$ all of the time |
| Enjoyed life | $1-4$ | $1=$ rarely $4=$ all of the time |
| Sad | $1-4$ | $1=$ rarely $4=$ all of the time |
| Depressed |  |  |
| Vitality (eudemonic) | $1-5$ | $1=$ rarely $4=$ all of the time |
| How often have you felt...during the last week? |  | $1=$ rarely $4=$ all of the time |
| Everything was an effort | $1-5$ | $1=$ rarely $4=$ all of the time |
| My sleep was restless | $1-5$ | $1=$ very bad $5=$ excellent |
| I could not get going | $1-5$ | $1=$ agree $5=$ disagree |
| How would you rate your health? | $1-5$ |  |

Hypothesis 3: Based on the findings of the more comprehensive review study, which looked at overall correlates of eudemonia measures (Ryff 2014), we expect those who are divorced to report lower levels of vitality than those who are married, and that this will have a greater impact on women.

### 10.2.3 Multi-dimensional Subjective Wellbeing, Lone Parenting and Gender

Across most industrialised nations lone mothers face a number of obstacles following a divorce, which might be detrimental to their SWB. This includes a greater risk of poverty than their married counterparts, single fathers and single childless women (Brady and Burroway 2012; Maldonado and Nieuwenhuis 2015). In light of this, whilst it may be expected that these obstacles would indicate that lone mothers are likely to report lower levels of SWB than married mothers, some studies looking specifically at hedonic measures of SWB have found no negative association between parenting alone and SWB among mothers (Baronowska-Rataj et al. 2014). This study also provided qualitative evidence of a positive association between lone motherhood and eudemonic SWB, with children providing a sense of purpose and meaning for mothers (Ibid). Moreover, a study looking at another eudemonic measure of SWB, perceived parenting energy, found little difference between single and married mothers (Janisse et al. 2009).

Conversely, research looking at measures of happiness over a 20-year period shows a persistent and statistically significant gap between single and married
mothers, though overall levels of SWB for single mothers had increased throughout the period (Herbst and Ifcher 2012). Furthermore, recent cross national research looking at life satisfaction has shown that lone mothers still report lower levels of SWB in comparison to married mothers (Pollmann-Schult 2018). Likewise, a study examining both lone mothers' and fathers' SWB, found both to be at an elevated risk of psychological distress in comparison to married parents (Collings et al. 2014). This risk was also found to be worse for lone mothers (Ibid).

Hypothesis 4: (4.1) Based on the findings presented from previous literature, we expect lone mothers to report lower levels of both life satisfaction and (4.2) emotional wellbeing than married mothers. Concerning vitality, however, in light of the studies which examined parenting in relation to eudemonic measures of SWB, (4.3) we expect no differences between lone mothers and married mothers concerning levels of vitality. Considering the aforementioned research examining psychological distress, which examined both men and women (Collings et al. 2014), (4.4) we expect lone fathers to report lower levels of SWB than married fathers across all dimensions.

### 10.2.3.1 Lone Parenting and Gender

While the lower levels of SWB of lone parents in comparison to married parents may be self-evident, why lone parents differ across gender is not entirely clear. However, some empirical research suggests that this is due to gender differences in the pressures and importance placed on the parenting role. The importance placed on the parenting role is increasingly something that in a number of ways differentially affects fathers and mothers. Research has highlighted how men's physical activity declines significantly following the birth of a child (Hull et al. 2010). In comparison to previous generations, fathers feel pressure to spend more time with their children in order to identify as a good father, and this identity is increasingly important to their sense of wellbeing (Milkie et al. 2010; Nomaguchi et al. 2005; Townsend 2002). This importance of fatherhood is reflected in the declines in life satisfaction they experience following a divorce (Leopold 2018). Divorced fathers experience increased feelings of loneliness, isolation and declines in measures of satisfaction with family life, with much of it caused by their separation from children, who are more likely to reside with their mother (Dykstra and Fokkema 2007; Leopold and Kalmijn 2016; Shor et al. 2012; Stack and Eshleman 1998).

Conversely, some scholars argue that ideals of fatherhood are not as central to men's SWB as motherhood is to women's. Thus while fatherhood is increasingly important to men, it is still only one of several important gender roles expectations, such as breadwinner and husband (Dykstra and Keizer 2009; Milkie et al. 2010; Townsend 2002). Mothers typically face additional parenting responsibilities following the birth of a child, such as changes to a mother's lifestyle, profession, and hours of employment (Cinamon and Rich 2002; Hynes and Clarkberg 2005; Sanchez and Thomson 1997). The additional pressures are identified as potential reasons why mothers report lower levels of subjective wellbeing than fathers, including
during activities with their children (Musick et al. 2016; Ryff 2014). Moreover, motherhood has been linked to greater risks of fatigue and psychological distress, both in comparison to fathers and non-mothers (Simon 1992; Reichl et al. 2014). These extra challenges and pressures experienced by mothers have been termed "intensive motherhood" (Christopher 2012; Hays 1996; Singh 2004). "Intensive motherhood" is a cultural model that mothers prescribe to as one of many potentially competing ideals (such as a good employee) (Christopher 2012). In a study examining how these competing ideals may affect how married and single mothers perform motherhood, Christopher (2012) found that married mothers, in trying to balance work and motherhood, behaved in a way she describes as "extensive motherhood" (Christopher 2012). They felt the pressures associated with "intensive motherhood", but expressed it through how they were in charge. These pressures linked with intensive motherhood were, however, not so clearly displayed by single mothers. They stated greater wishes to work, regardless of need, and a refusal to sacrifice themselves "to the point of nothingness" (Christopher 2012, pp. 87).

Hypothesis 5: With regard to parental gender differences in SWB we have a number of expectations based on the preceding literature. (5.1) We expect divorced, single fathers to report lower levels of life satisfaction than divorced, single mothers. Furthermore, we expect this to be worse for divorced fathers who do not reside with their children at all. Though some research has pointed to a lack of gender differences in relation to hedonic measures of SWB, broader research concerning parenting and SWB has generally pointed towards a greater negative association with motherhood than fatherhood. Thus, (5.2) we expect lone mothers to report lower levels of SWB than lone fathers when analysing measures of emotional wellbeing and vitality.

### 10.3 Data, Measures and Methods

### 10.3.1 Data

We analyze data from the cross sectional "Divorce in Flanders survey" (Mortelmans et al. 2011) collected in 2009/10. The sample contains couples married between January 1st, 1971 and December 31st, 2008. All couples resided in the Flemish region and have Belgian nationality, though their parents may be non-Belgian. All respondents are currently in their first marriage, or have experienced one divorce. The age range of the sample is 22-72 years. The years of divorce range from 1974 up until 2009. The survey is an intergenerational dataset (i.e. grandparents, parents and children) drawn from the Belgian national register. The response rate is $42.2 \%$. This is similar to other European multi-actor surveys (Dykstra et al. 2005). The data is cross-sectional and starts from a selected reference marriage, which is either intact ( $\mathrm{n}=1811$ ) or divorced $(\mathrm{n}=4659)$. The sample was over-selected with respect to marriages ending in divorce, such that $1 / 3$ of the original sample involved intact marriages, and $2 / 3$ divorced ones. The sample was also stratified with regards to the year of marriage (Mortelmans et al. 2011).

### 10.3.2 Measures

### 10.3.2.1 Dependent Variables of Multi-dimensional Subjective Well-Being

We use multiple SWB items to create composite measures. These items pose theoretically similar questions to respondents. This method has been demonstrated to improve the accuracy of responses by averaging out any errors or mistakes by respondents (Krueger and Schkade 2008; Michaelson et al. 2009) and is an established practice for the assessment of wellbeing. Examples and evaluations of these methods are reported in Thomson and Marks (2008), Clark and Senik (2011), Dolan et al. (2008).

We transform values of all items so that positive and negative items are in the same direction. These are then centred and aggregated to make composite indicators of SWB (Thomson and Marks 2008; Michaelson et al. 2009; Clark and Senik 2011). Centring the items makes the aggregation simpler. The robustness of this method for constructing wellbeing measures is assessed in Clark and Senik (2011).

The resulting indicators tap each of the aforementioned dimensions of SWB (Table 10.1). We use a traditional single item measure of life satisfaction (cognitive/ evaluative). Life satisfaction is captured on a $0-10$ scale and is centred. Our measure of emotional wellbeing is constructed following Michaelson et al. (2009). It consists of 4 items; two of the items involve the frequency of positive emotions and two involve negative emotions all of which are scored on a 1-4 scale. (Michaelson et al. 2009). For our measure of eudemonia, we use a composite measure of vitality. It includes questions capturing a subjective assessment of energy levels, feeling "well rested" and feeling healthy and active. Each of these items is scored on a $1-5$ scale (Michaelson et al. 2009). All items are centred. ${ }^{2}$

### 10.3.2.2 Independent Variables

Our main independent variable has 9 categories representing all combinations of partnership and parental status and one residual category (Table 10.2). Partnership status is distinguished between those who were still in their first marriage at the time of the survey and those who were divorced and not yet re-partnered by the time of the survey (single). Parental status distinguishes between those with resident children (below age 18), those with non-resident children, and those who are childless. Household residency was established from a question on, who was present in the house at least 4 days per week, or in cases where parents had divorced, at least some of the time on a regular basis in an ordinary week. For those who are divorced

[^30]Table 10.2 Descriptive statistics

| Variable | Male |  |  |  |  |  |  | Female |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | Life satisfaction |  | Emotional wellbeing |  | Vitality |  | N | Life satisfaction |  | Emotional wellbeing |  | Vitality |  |
|  |  | Mean | sd | Mean | sd | Mean | sd |  | mean | sd | Mean | sd | Mean | sd |
| Marital/parental status |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Married only res | 387 | 0.09 | 0.77 | 0.22 | 0.55 | 0.21 | 0.52 | 467 | 0.1 | 0.72 | 0.09 | 0.69 | 0.11 | 0.63 |
| Married no children | 194 | 0.13 | 0.78 | 0.21 | 0.59 | 0.16 | 0.58 | 236 | 0.04 | 1 | 0.02 | 0.74 | 0.02 | 0.63 |
| Married only non-res | 217 | 0.13 | 0.77 | 0.18 | 0.6 | 0.11 | 0.57 | 235 | 0.15 | 0.87 | 0 | 0.72 | -0.06 | 0.71 |
| Married both | 15 | 0.3 | 0.74 | 0.22 | 0.62 | 0.15 | 0.77 | 12 | 0.06 | 1.1 | 0.17 | 0.71 | -0.1 | 0.57 |
| Divorced single only res | 81 | -0.5 | 1.04 | -0.22 | 0.82 | -0.02 | 0.69 | 284 | -0.42 | 1.01 | -0.34 | 0.86 | -0.16 | 0.75 |
| Divorced single no children | 135 | -0.69 | 1.27 | -0.24 | 0.86 | -0.11 | 0.84 | 198 | -0.48 | 1.16 | -0.37 | 0.97 | -0.19 | 0.79 |
| Divorced single non-res $>18$ | 204 | -0.6 | 1.29 | -0.23 | 0.88 | -0.12 | 0.78 | 276 | -0.53 | 1.27 | -0.5 | 0.97 | -0.31 | 0.82 |
| Divorced single non-res $<18$ | 143 | -0.96 | 1.37 | -0.35 | 0.96 | -0.05 | 0.8 | 19 | -0.81 | 1.53 | -0.94 | 0.94 | -0.47 | 0.62 |
| Re-partnered | 1589 | 0.21 | 0.87 | 0.19 | 0.64 | 0.1 | 0.62 | 1673 | 0.16 | 0.94 | -0.03 | 0.82 | -0.06 | 0.74 |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ISCED 5-8 | 1035 | -0.01 | 0.88 | 0.12 | 0.67 | 0.14 | 0.59 | 1344 | 0.01 | 0.84 | -0.02 | 0.74 | 0.05 | 0.65 |
| ISCED 3-4 | 1213 | 0.06 | 0.97 | 0.12 | 0.69 | 0.09 | 0.64 | 1391 | -0.01 | 1.03 | -0.1 | 0.86 | -0.09 | 0.74 |
| ISCED 0-2 | 709 | -0.05 | 1.19 | 0.06 | 0.76 | -0.02 | 0.73 | 659 | -0.04 | 1.22 | -0.24 | 0.94 | -0.26 | 0.82 |
| Missing | 8 | 0.43 | 0.77 | 0.59 | 0.3 | 0.22 | 0.52 | 6 | -0.04 | 0.79 | -0.44 | 1.38 | -0.28 | 1.08 |
| Employment status |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Full-time | 2320 | 0.07 | 0.91 | 0.16 | 0.64 | 0.16 | 0.57 | 1485 | -0.01 | 0.94 | -0.05 | 0.79 | 0.06 | 0.63 |
| Part-time | 168 | 0.02 | 1.01 | 0.03 | 0.77 | -0.04 | 0.65 | 1158 | 0.06 | 0.9 | -0.04 | 0.79 | -0.01 | 0.65 |
| Inactive | 477 | -0.3 | 1.3 | -0.11 | 0.91 | -0.26 | 0.85 | 757 | -0.11 | 1.24 | -0.27 | 0.97 | -0.4 | 0.92 |

Table 10.2 (continued)

| Variable | Male |  |  |  |  |  |  | Female |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | Life satisfaction |  | Emotional wellbeing |  | Vitality |  | N | Life satisfaction |  | Emotional wellbeing |  | Vitality |  |
|  |  | Mean | sd | Mean | sd | Mean | sd |  | mean | sd | Mean | sd | Mean | sd |
| Parental migration background |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Both parents Belgian | 2870 | 0.01 | 1 | 0.11 | 0.7 | 0.09 | 0.64 | 3316 | -0.01 | 1 | -0.09 | 0.83 | -0.07 | 0.73 |
| 1 non-Belgian | 85 | -0.04 | 0.95 | 0.07 | 0.73 | -0.01 | 0.66 | 76 | 0.08 | 1.16 | -0.24 | 1.06 | -0.12 | 0.74 |
| Both parents non-Belgian | 3 | -0.73 | 1.23 | 0.17 | 0.74 | -0.46 | 0.69 | 5 | -0.77 | 0.99 | -0.98 | 0.5 | -0.49 | 1.15 |
| Missing | 7 | 0.06 | 0.97 | -0.08 | 1.26 | 0.14 | 0.84 | 3 | 0.65 | 0.59 | 0.26 | 0.48 | 0.19 | 0.54 |
| Income |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| €250-€1999.99 | 464 | -0.45 | 1.36 | -0.17 | 0.88 | -0.13 | 0.77 | 746 | -0.37 | 1.23 | -0.4 | 0.98 | -0.29 | 0.85 |
| €2000-€2499.99 | 567 | -0.06 | 1.03 | 0.05 | 0.74 | 0.02 | 0.67 | 687 | -0.05 | 0.97 | -0.14 | 0.81 | -0.14 | 0.74 |
| €2500-€3749.99 | 917 | 0.17 | 0.87 | 0.22 | 0.62 | 0.15 | 0.59 | 962 | 0.16 | 0.87 | 0.04 | 0.72 | 0.02 | 0.68 |
| €3750-€4999.99 | 492 | 0.14 | 0.74 | 0.18 | 0.61 | 0.18 | 0.55 | 411 | 0.16 | 0.79 | 0.05 | 0.77 | 0.05 | 0.6 |
| €5000+ | 293 | 0.19 | 0.77 | 0.25 | 0.55 | 0.23 | 0.54 | 240 | 0.17 | 0.76 | 0.09 | 0.73 | 0.15 | 0.63 |
| Missing | 232 | -0.07 | 1 | 0.06 | 0.7 | 0.03 | 0.7 | 354 | 0.06 | 1.01 | -0.02 | 0.79 | 0.04 | 0.65 |
| Recent divorce |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No recent divorce | 2446 | 0.05 | 0.95 | 0.13 | 0.68 | 0.08 | 0.64 | 2836 | 0.01 | 1 | -0.07 | 0.83 | -0.07 | 0.73 |
| Recent divorce (3 years) | 519 | -0.17 | 1.17 | 0.02 | 0.8 | 0.1 | 0.65 | 564 | -0.12 | 1.01 | -0.2 | 0.88 | -0.08 | 0.73 |

and also single, we make a distinction by the age of non-resident children. ${ }^{3}$ Respondents were asked the ages and number of non-resident children who live outside of the household. Respondents with a child under the age of 18 are in a separate category from those with adult children who have left the home because this distinction is likely to be relevant for SWB. We expect those with non-resident children younger than age 18 to report lower SWB than those with older children who have left the home. The number of cases for this group is lower for women than for men. This distinction is not required for those who are married, as the number of cases is extremely low and is not the focus of the current analysis. The category "married both" refers to those who have both residential children and non-residential children. In this scenario it refers to children over the age of 18 who have left the home. Those categorised as having no children reported that they had no children resident in the home and did not indicate that they had any children, of any age, living outside of the home. "Re-partnered" refers to those who have divorced prior to the survey but are no longer single. They have re-partnered via either a living apart together (LAT) relationship, cohabitating union or through re-marriage.

Our analysis includes several socio-economic and demographic control variables. We use covariates for age and a second-degree polynomial of age as well as a categorical variable for the migration background of parents. Education is operationalised as a categorical variable by ISCED score across three levels. Employment status is specified as three categories; inactive, part time and full time. Monthly household income is a categorical variable with 5 levels, representing incomes below $€ 2000$, €2000-€2499, €2500-€3749, €3750-€4999 and €5000+. The occurrence of a recent divorce is specified as a dummy indicator capturing whether the event occurred in the preceding 3 years. Descriptive statistics for all of variables are presented in Table 10.2, separately for females and males. ${ }^{4}$

### 10.3.3 Methods

Statistical models of the three SWB indicators are estimated using ordinary least squares regression, separately for men and women. Additionally, models are estimated including both genders, to directly compare such categories as divorced lone mothers vs. lone fathers.

The benefit of this approach is to illuminate the differences between parents by marital status, but also between lone parents by gender. The models are unweighted and we use $\mathrm{p}<0.05$ to evaluate statistical significance.

[^31]
### 10.4 Results

The results presented in Tables 10.3, 10.4, and 10.5 show the OLS estimates for life satisfaction, emotional wellbeing and vitality respectively. Column M1 shows the OLS estimations for marital and parental statuses. The reference category consists of respondents who are married with resident children. Column M2 reports the OLS estimates when all the control variables are incorporated. The results presented in Table 10.6 apply to the combined female and male subsamples and show estimates for each dimension of SWB for those who are both divorced and single, combining both genders. Column M1 shows coefficients for people who are divorced and also single by gender and child residential situation. The reference category is divorced, single mothers with resident children. Column M2 includes the model estimates following the introduction of control variables into the models, as in Tables 10.3, 10.4 and 10.5.

Regarding partnership status, the estimates presented in Table 10.3 show that divorced, single men and women, regardless of parental situation, report lower life satisfaction than those who are married. Concerning parenthood status, being a divorced, single father is negatively related to life satisfaction in comparison to married fathers ( $\beta=-0.59, \mathrm{p}<0.001 ; \beta=-0.43, \mathrm{p}<0.001$ Table 10.3, M1, M2). This is also the case when comparing divorced, single mothers to married mothers ( $\beta=-0.52, \mathrm{p}<0.001 ; \beta=-0.33, \mathrm{p}<0.001$ Table 10.3, M1, M2). Additionally, the estimates indicate that divorced, single fathers with non-resident children below the age of 18 have the lowest life satisfaction of all groups $(\beta=-1.05, \mathrm{p}<0.001$; $\beta=-0.85, \mathrm{p}<0.001$ Table 10.3, M1, M2). The gap between divorced, single fathers with non-resident children below the age of 18 and married fathers is also larger than the gap for the equivalent estimates for mothers $(\beta=-0.91, \mathrm{p}<0.001$; $\beta=-0.64, \mathrm{p}<0.001$ Table 10.3, M1, M2).

All of these negative coefficients presented in Table 10.3 are sensitive to the addition of control variables, with the magnitude of coefficients generally diminishing. The direction of the educational coefficients are different for men and women. The estimates for education show that men with ISCED scores of 0-2 and 3-4 had higher levels of life satisfaction than those with scores of 5-6 ( $\beta=0.13, \mathrm{p}<0.01$; $\beta=0.13, \mathrm{p}<0.01$ Table 10.3, M2), whereas the gradient is reversed for women. Likewise, economic inactivity is only negatively associated with the life satisfaction of men $(\beta=-0.29, \mathrm{p}<0.001$, Table $10.3, \mathrm{M} 2$ ) and is statistically insignificant for women. For men the incidence of a divorce in the last 3 years is negative, whereas the same estimate is statistically insignificant for women ( $\beta=-0.10, \mathrm{p}<0.05$ Table 10.3, M2).

In Table 10.4 we find that all divorced and single categories have lower emotional wellbeing than those who are married and that this is true for both men and women. With regard to the different parenthood statuses, we find that divorced, single fathers report lower emotional wellbeing in comparison to married fathers ( $\beta=-0.44, \mathrm{p}<0.001 ; \beta=-0.34, \mathrm{p}<0.001$ Table 10.4, M1, M2). We also find lower levels of SWB when comparing divorced, single mothers to married mothers

Table 10.3 OLS estimates of life satisfaction

| Life satisfaction | Male |  |  | Female |
| :--- | :--- | :--- | :--- | :--- |
| Coefficients: | M1 | M2 | M1 | M2 |
|  | Estimate | Estimate | Estimate | Estimate |
|  | $0.09(0.05)$ | $1.75(0.47) * * *$ | $0.10(0.04) *$ | $1.71(0.43) * * *$ |

Marital/parental status (ref - married with residential children)

| Married no children | $0.04(0.08)$ | $0.05(0.08)$ | $-0.06(0.08)$ | $-0.02(0.08)$ |
| :--- | :---: | :---: | :---: | :---: |
| Married only non-res | $0.04(0.08)$ | $0.14(0.09)$ | $0.05(0.08)$ | $0.16(0.9)$ |
| Married both | $0.21(0.25)$ | $0.23(0.25)$ | $-0.04(0.28)$ | $0.10(0.28)$ |
| Divorced single only <br> res | $-0.59(0.11) * * *$ | $-0.43(0.12) * * *$ | $-0.52(0.07) * * *$ | $-0.33(0.08) * * *$ |
| Divorced single no <br> children | $-0.78(0.09) * * *$ | $-0.58(0.10) * * *$ | $-0.58(0.08) * * *$ | $-0.35(0.09) * * *$ |
| Divorced single <br> non-res >18 | $-0.69(0.08) * * *$ | $-0.48(0.09) * * *$ | $-0.63(0.07) * * *$ | $-0.37(0.09) * * *$ |
| Divorced single <br> non-res <18 | $-1.05(0.09) * * *$ | $-0.85(0.10) * * *$ | $-0.91(0.23) * * *$ | $-0.64(0.23) * *$ |
| Re-partnered | $0.12(0.05) *$ | $0.19(0.06) * *$ | $0.06(0.05)$ | $0.15(0.05) * *$ |

Education (ref - ISCED 5-6)

| ISCED 3-4 |  | $0.13(0.04) * *$ |  | $0.01(0.04)$ |
| :--- | :--- | :---: | :--- | :---: |
| ISCED 0-2 |  | $0.13(0.05) * *$ |  | $0.06(0.05)$ |
| Age (years <br> continuous) |  | $-0.09(0.02) * * *$ |  | $-0.08(0.02) * * *$ |
| Age $* 2$ |  | $0.00(0.00) * * *$ |  | $0.00(0.00) * * *$ |

Labour supply (ref - full time emp)

| Part-time |  | $-0.05(0.08)$ |  | $0.07(0.04)$ |
| :--- | :--- | :--- | :--- | ---: |
| Inactive |  | $-0.29(0.06) * * *$ |  | $-0.03(0.05)$ |

Parental migration background (ref - both Belg)

| 1 non-Belgian |  | $-0.05(0.10)$ |  | $0.13(0.11)$ |
| :--- | :--- | :--- | :--- | ---: |
| Both parents <br> non-Belgian |  | $-0.50(0.54)$ |  | $-0.70(0.43)$ |

Income (ref - €0-€1999)

| $€ 2000-€ 2499.99$ |  | $0.16(0.06) * *$ |  | $0.20(0.05) * * *$ |
| :--- | :--- | :---: | :--- | :---: |
| $€ 2500-€ 3749.99$ |  | $0.23(0.06) * * *$ |  | $0.30(0.05) * * *$ |
| $€ 3750-€ 4999.99$ |  | $0.19(0.07) * *$ |  | $0.29(0.07) * * *$ |
| $€ 5000+$ |  | $0.27(0.08) * * *$ |  | $-0.32(0.08) * * *$ |
| Recent divorce <br> 3 years |  | $-0.10(0.05) *$ |  | $-0.03(0.05)$ |
| N | 2708 | 2708 | 3285 | 3285 |
| Adjusted r-squared | 0.12 | 0.14 | 0.07 | 0.08 |

Signif. codes: ‘***' 0.001 ' $* *$ ’ $0.01^{\prime} *$ ' 0.05
Note: "Other" refers to those who have divorced but are no longer single. "Married both" refers to those who have both residential children and non-residential children over 18 who have left the home

Table 10.4 OLS estimates of emotional wellbeing

| Emotional wellbeing | Male |  | Female |  |
| :---: | :---: | :---: | :---: | :---: |
| Coefficients: | M1 | M2 | M1 | M2 |
|  | Estimate | Estimate | Estimate | Estimate |
| (Intercept) | 0.22 (0.03) **** | 1.22 (0.34)*** | 0.009 (0.04)* | 1.61 (0.36)*** |
| Marital/parental status (ref - married residential children) |  |  |  |  |
| Married no children | -0.02 (0.06) | -0.01 (0.06) | -0.07 (0.07) | -0.05 (0.07) |
| Married only non-res | -0.05 (0.06) | 0.02 (0.06) | -0.09 (0.07) | 0.00 (0.07) |
| Married both | 0.00 (0.18) | 0.02 (0.18) | 0.08 (0.24) | 0.24 (0.24) |
| Divorced single only res | -0.44 (0.08)*** | -0.34 (0.09)*** | -0.43 (0.06)*** | -0.27 (0.07)*** |
| Divorced single no children | -0.47 (0.07) *** | -0.34 (0.07)*** | -0.46 (0.07) *** | -0.28 (0.08)*** |
| Divorced single non-res >18 | -0.45 (0.06) *** | -0.31 (0.07)*** | -0.59 (0.06) *** | -0.39 (0.07)*** |
| Divorced single non-res <18 | -0.57 (0.07)*** | -0.43 (0.07)*** | -1.03 (0.19)*** | -0.76 (0.19)*** |
| Re-partnered | -0.03 (0.04) | 0.01 (0.04) | $-0.12(0.04) * *$ | -0.03 (0.05) |

Education (ref - ISCED 5-6)

| ISCED 3-4 |  | $0.05(0.03)$ |  | $-0.02(0.03)$ |
| :--- | :--- | :---: | :--- | :--- |
| ISCED 0-2 |  | $0.06(0.04)$ |  | $-0.09(0.04) *$ |
| Age (years <br> continuous) |  | $-0.05(0.01) * * *$ |  | $-0.08(0.02) * * *$ |
| Age $* \mathbf{2}$ |  | $0.00(0.00) * * *$ |  | $0.00(0.00) * * *$ |

Labour supply (ref - full time emp)

| Part-time |  | $-0.12(0.05) *$ |  | $0.00(0.03)$ |
| :--- | :--- | :--- | :--- | :---: |
| Inactive |  | $-0.22(0.04) * * *$ |  | $-0.17(0.04) * * *$ |

## Parental migration background (ref - both Belg)

| 1 non-Belgian |  | $-0.04(0.07)$ |  | $-0.10(0.09)$ |
| :--- | :--- | :---: | :--- | :--- |
| Both parents <br> non-Belgian |  | $0.16(0.39)$ |  | $-0.86(0.36) *$ |

Income (ref - €0-€1999)

| $€ 2000-€ 2499.99$ |  | $0.10(0.04) *$ |  | $0.14(0.05) * *$ |
| :--- | :--- | :---: | :--- | :---: |
| $€ 2500-€ 3749.99$ |  | $0.17(0.04) * * *$ |  | $0.22(0.05) * * *$ |
| $€ 3750-€ 4999.99$ |  | $0.13(0.05) *$ |  | $0.21(0.06) * * *$ |
| €5000+ |  | $0.21(0.06) * * *$ |  | $0.23(0.07) * * *$ |
| Recent divorce <br> 3 years |  | $-0.03(0.04)$ |  | $-0.04(0.04)$ |
| N | 2708 | 2708 | 3284 | 3284 |
| Adjusted r-squared | 0.06 | 0.08 | 0.05 | 0.07 |

Signif. codes: ‘***' 0.001 '**' 0.01 '*’ 0.05
Note: "Other" refers to those who have divorced but are no longer single. "Married both" refers to those who have both residential children and non-residential children over 18 who have left the home

Table 10.5 OLS estimates of vitality

| Vitality | Male |  |  | Female |
| :--- | :--- | :--- | :--- | :--- |
| Coefficients: | M1 | M2 | M1 | M2 |
|  | Estimate | Estimate | Estimate | Estimate |
|  | $0.21(0.03) * * *$ | $1.12(0.32) * * *$ | $0.11(0.03) * * *$ | $1.09(0.32) * * *$ |
| Marital/parental status (ref - married resident children $)$ |  |  |  |  |
| Married no children | $-0.05(0.06)$ | $-0.02(0.06)$ | $-0.09(0.06)$ | $-0.08(0.06)$ |
| Married only non-res | $-0.10(0.05)$ | $0.03(0.06)$ | $-0.18(0.06) * *$ | $-0.04(0.06)$ |
| Married both | $-0.06(0.17)$ | $-0.03(0.17)$ | $-0.21(0.21)$ | $0.02(0.21)$ |
| Divorced single only <br> res | $-0.23(0.08) * *$ | $-0.16(0.08) *$ | $-0.28(0.05) * * *$ | $-0.20(0.06) * * *$ |
| Divorced single no <br> children | $-0.32(0.06) * * *$ | $-0.17(0.07) *$ | $-0.30(0.06) * * *$ | $-0.18(0.7) * *$ |
| Divorced single non <br> res $>18$ | $-0.34(0.06) * * *$ | $-0.15(0.06) *$ | $-0.42(0.06) * * *$ | $-0.28(0.06) * * *$ |
| Divorced single <br> non-res $<18$ | $-0.26(0.06) * * *$ | $-0.13(0.07)$ | $-0.58(0.17) * * *$ | $-0.37(0.17) *$ |
| Re-partnered | $-0.11(0.04) * *$ | $-0.06(0.04)$ | $-0.17(0.04) * * *$ | $-0.11(0.04) * *$ |

Education (ref - ISCED score 5-6)

| ISCED 3-4 |  | $0.00(0.03)$ |  | $-0.06(-0.03) *$ |
| :--- | :--- | ---: | :--- | :--- |
| ISCED 0-2 |  | $-0.03(0.03)$ |  | $-0.14(0.04) * * *$ |
| Age |  | $-0.05(0.01) * * *$ |  | $-0.05(0.01) * *$ |
| Age $* \mathbf{2}$ |  | $0.00(0.00) * * *$ |  | $0.00(0.00) * * *$ |

Labour supply (ref - full time emp)

| Part-time |  | $-0.21(0.05) * * *$ |  | $-0.07(0.03) *$ |
| :--- | :--- | :--- | :--- | :--- |
| Inactive | $-0.42(0.04) * * *$ |  | $-0.42(0.04) * * *$ |  |

## Parental nationality (ref - both Belg)

| 1 non-Belgian |  | $-0.06(0.07)$ |  | $0.00(0.08)$ |
| :--- | :--- | :--- | :--- | ---: |
| Both parents <br> non-Belgian |  | $-0.49(0.36)$ |  | $-0.36(0.31)$ |

Income (ref - €0-€1999)

| $€ 2000-€ 2499.99$ |  | $0.03(0.04)$ |  | $0.03(0.04)$ |
| :--- | :--- | :--- | :--- | :--- |
| $€ 2500-€ 3749.99$ |  | $0.10(0.04) *$ |  | $0.11(0.04) * *$ |
| $€ 3750-€ 4999.99$ |  | $0.10(0.05) *$ |  | $0.08(0.05)$ |
| $€ 5000+$ |  | $0.15(0.05) * *$ |  | $0.17(0.06) * *$ |
| Recent divorce <br> $\mathbf{3}$ years |  | $0.04(0.03)$ |  | $0.04(0.04)$ |
| $\mathbf{N}$ | 2666 | 2666 | 3247 | 3247 |
| Adjusted r-squared | 0.02 | 0.08 | 0.02 | 0.09 |

Signif. codes: ‘***' 0.001 '**' $0.01^{\prime} *$ ' 0.05
Note: "Other" refers to those who have divorced but are no longer single. "Married both" refers to those who have both residential children and non-residential children over 18 who have left the home
Table 10.6 OLS estimates of SWB for divorced, single men and women

| Coefficients: | Life satisfaction |  | Emotional wellbeing |  | Vitality |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estimate (SE) |  | Estimate (SE) |  | Estimate (SE) |  |
|  | M1 | M2 | M1 | M2 | M1 | M2 |
| (Intercept) | -0.42 (0.07)*** | 0.75 (1.03) | -0.34 (0.05)*** | 1.07 (0.78) | -0.16 (0.05)*** | 0.71 (0.65) |
| Parental status (ref - only residential female) |  |  |  |  |  |  |
| Only residential male | -0.08 (0.15) | -0.12 (0.15) | 0.12 (0.12) | 0.09 (0.12) | 0.15 (0.10) | 0.06 (0.10) |
| Childless male | -0.27 (0.13)* | -0.30 (0.14)* | 0.09 (0.10) | 0.11 (0.10) | 0.06 (0.08) | 0.05 (0.09) |
| No children female | -0.06 (0.11) | -0.08 (0.12) | -0.03 (0.08) | 0.00 (0.09) | -0.02 (0.07) | 0.00 (0.07) |
| Non-residential <18 male | -0.54 (0.12)*** | -0.54 (0.13)*** | -0.01 (0.09) | 0.02 (0.10) | 0.11 (0.08) | 0.10 (0.08) |
| Non-residential $<18$ female | -0.39 (0.29) | -0.24 (0.28) | -0.60 (0.22)** | -0.48 (0.21)* | -0.31 (0.19) | -0.16 (0.18) |
| Non-residential $>18$ male | -0.18 (0.11) | -0.23 (0.14) | 0.11 (0.08) | 0.15 (0.10) | 0.04 (0.07) | 0.06 (0.09) |
| Non-residential $>18$ female | 0.11 (0.10) | -0.12 (0.12) | -0.16 (0.08)* | -0.11 (0.09) | -0.14 (0.07)* | -0.10 (0.08) |
| Education (ref - ISCED score 5-6) |  |  |  |  |  |  |
| ISCED 3-4 |  | 0.02 (0.08) |  | -0.03 (0.06) |  | 0.01 (0.05) |
| ISCED 0-2 |  | -0.03 (0.09) |  | -0.13 (0.07) |  | -0.07 (0.06) |
| Age |  | -0.06 (0.04) |  | -0.06 (0.03) |  | -0.04 (0.03) |
| Age 2 |  | 0.00 (0.00) |  | 0.00 (0.00) |  | 0.00 (0.00) |
| Labour supply (ref - full time emp) |  |  |  |  |  |  |
| Part-time |  | 0.01 (0.09) |  | -0.03 (0.07) |  | -0.13 (0.06)* |
| Inactive |  | $-0.36(0.09) * * *$ |  | -0.29 (0.07)*** |  | -0.61 (0.06)*** |
| Parental nationality (ref - both Belg) |  |  |  |  |  |  |
| 1 non-Belgian |  | 0.14 (0.20) |  | -0.15 (0.15) |  | -0.08 (0.13) |
| Both parents non-Belgian |  | 0.30 (0.85) |  | 0.37 (0.64) |  | -0.05 (0.53) |

Income (ref - €0-€1999)

| €2000-€2499.99 |  | 0.12 (0.09) |  | 0.06 (0.06) |  | 0.01 (0.05) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| €2500-€3749.99 |  | 0.33 (0.12)** |  | 0.25 (0.09)** |  | 0.22 (0.07) *** |
| €3750-€4999.99 |  | 0.35 (0.25) |  | -0.02 (0.19) |  | 0.03 (0.16) |
| €5000+ |  | 0.61 (0.28)* |  | 0.23 (0.21) |  | 0.14 (0.18) |
| Recent divorce 3 years |  | -0.20 (0.07)** |  | -0.12 (0.06) |  | 0.02 (0.05) |
| N | 1213 | 1213 | 1213 | 1213 | 1193 | 1193 |
| Adjusted R squared | 0.01 | 0.04 | 0.01 | 0.05 | 0.01 | 0.12 |

Signif. codes: ‘***’ 0.001 ' $* *$ ’ $0.01^{\prime} *$ ’ 0.05
( $\beta=-0.43, \mathrm{p}<0.001 ; \beta=-0.27, \mathrm{p}<0.001$ Table 10.4, M1, M2). For women the largest negative estimate for SWB is found for divorced, single mothers with nonresident children below the age of 18 and emotional wellbeing ( $\beta=-1,03, p<0.001$, Table 10.4, M1; $\beta=-0.76, \mathrm{p}<0.001$, Table 10.4, M2). Furthermore, this difference in emotional wellbeing is also larger than the corresponding one for divorced, single fathers with non-resident children below the age of 18 (Male; $\beta=-0.57, p<0.001$, Table 10.4, M1; $\beta=-0.43, p<0.001$, Table 10.4, M1. Female; $\beta=-1,03, p<0.001$, Table 10.4, M1; $\beta=-0.76, \mathrm{p}<0.001$, Table 10.4, M2).

The negative estimates presented in Table 10.4 for emotional wellbeing are also sensitive to the additional variables included in M2. The coefficients presented for education show small differences, however they are not statistically significant. Women with the lowest levels of education, ISCED scores $0-2$ and $3-4$, have the lowest levels of emotional wellbeing, however only those at the lowest levels are statistically significant ( $\beta=-0.09, \mathrm{p}<0.05$, Table 10.4 , M2). For emotional wellbeing, economic inactivity is negatively associated with the life satisfaction of men and women ( $\beta=-0.22, \mathrm{p}<0.001 ; \beta=-0.17, \mathrm{p}<0.001$ Table 10.4, M2), although part-time working is only associated negatively with the emotional wellbeing of men ( $\beta=-0.12, \mathrm{p}<0.05$ Table 10.4, M2). The estimated effect of a divorce in the previous 3 years is not statistically significant for either gender.

In Table 10.5 we find that nearly all groups for single divorcees have lower vitality than those who are married. The differences in estimates of vitality between married parents and parents who are single divorcees is considerably larger for women than for men. This is not the case for estimates of divorced, single men with resident children below the age of 18 , which following the introduction of control variables, becomes statistically insignificant. Likewise, married women with nonresident children report lower levels of vitality ( $\beta=-0.18, \mathrm{p}<0.01$; Table 10.5, M 1 ), although it also becomes statistically insignificant once control variables are included in the models. We find that divorced, single father's report lower vitality than married fathers ( $\beta=-0.23, \mathrm{p}<0.01 ; \beta=-0.16, \mathrm{p}<0.05$ Table 10.5 , M1, M2). This is also true for the comparison between divorced, single mothers and married mothers ( $\beta=-0.28, \mathrm{p}<0.001 ; \beta=-0.20, \mathrm{p}<0.001$ Table 10.5, M1, M2). The coefficient for divorced, single fathers with non-resident children below the age of 18 is also negative, although it becomes statistically insignificant in M2 when control variables are introduced into the models ( $\beta=-0.26, \mathrm{p}<0.001$; Table 10.5, M1). This is not the case for divorced, single mothers with non-resident children below the age of 18 , where both estimates are negative and statistically significant ( $\beta=-0.58, \mathrm{p}<0.001 ; \beta=-0.37, \mathrm{p}<0.5$ Table 10.5, M1, M2).

The coefficients presented in Table 10.5 for vitality are also reduced in magnitude with the additional variables included in M2. Women with the lower levels of education, ISCED scores $0-2$ and $3-4$, have the lowest levels of vitality ( $\beta=-0.14$, $\mathrm{p}<0.001 ; \beta=-0.06, \mathrm{p}<0.05$, Table 10.5, M2). The educational coefficients for men are negative for ISCED scores of $0-2$, although they are not statistically significant. For both genders, vitality declines with age ( $\beta=-0.05, \mathrm{p}<0.001 ; \beta=-0.05$, $\mathrm{p}<0.01$ Table $10.5, \mathrm{M} 2$ ) and is associated positively with higher incomes. In addition, economic inactivity is negatively associated with vitality of both genders
( $\beta=-0.42, \mathrm{p}<0.001 ; \beta=-0.42, \mathrm{p}<0.001$ Table $10.5, \mathrm{M} 2)$. This is also the case for those who work part-time ( $\beta=-0.21, p<0.001 ; \beta=-0.07, p<0.05$ Table 10.5, M2). The estimate for the occurrence of a recent divorce is statistically insignificant for both genders.

The results displayed in Table 10.6 indicate that there are no statistically significant gender differences between divorced, single parents with resident children. Concerning those with non-resident children below the age of 18 , the results for life satisfaction reveal that divorced, single fathers have the lowest life satisfaction when compared to divorced, single mothers $(\beta=-0,54, \mathrm{p}<0.001$, Table 10.6 , M1; $\beta=-0.54, \mathrm{p}<0.001$, Table 10.6, M2). None of the estimates for fathers with nonresidential children below the age of 18 are statistically significant for either emotional wellbeing or vitality. Divorced, single mothers with non-resident children have lower emotional wellbeing than those with resident children. This is true of divorced mothers with children above the age of 18 ( $\beta=-0,16, \mathrm{p}<0.05$, Table 10.6), but also particularly those with children under the age of $18(\beta=-0,60, p<0.01$, Table 10.6, M1; $\beta=-0.48, \mathrm{p}<0.05$, Table 10.6, M2). The life satisfaction results for divorced, single mothers with non-resident children below the age of 18 are not statistically significant. For vitality, divorced, single mothers with non-resident children below the age of 18 are shown to have lower levels of vitality than lone mothers with resident children ( $\beta=-0,14 \mathrm{p}<0.05$, M1; Table 10.6), however the coefficient becomes insignificant once control variables are introduced into the models.

In Table 10.6 the incidence of a divorce in the last 3 years is negative and statistically significant for life satisfaction ( $\beta=-0.20, \mathrm{p}<0.01$ Table 10.6, M2), though it is statistically insignificant for emotional wellbeing and vitality. We consistently find that economic inactivity is negatively associated with each dimension of SWB and is particularly strong for vitality $(\beta=-0.36, p<0.001 ; \beta=-0.29, p<0.001$ M1; Table 10.6; $\beta=-0.61, \mathrm{p}<0.001$ Table 10.6, M2).

These results have highlighted that across multiple dimensions of SWB, divorced, single mothers and fathers have lower SWB in comparison to married parents. We also found no differences by gender between lone mothers and fathers with resident children. They have also shown that divorced, single mothers and fathers with nonresident children under age 18 have the lowest levels of SWB. This was also dependent on the dimension of SWB being studied. The impact of non-resident children below the age of 18 is more negative for men when studying items of life satisfaction (Table 10.6). This is not the case for divorced, single women, for whom the negative impact of non-resident children below the age of 18 is more pronounced for emotional wellbeing (Table 10.6).

### 10.5 Discussion

The results which we have presented here have largely confirmed our expectations concerning hypotheses one to four that single divorcees in general, but also lone parents specifically, have lower levels of life satisfaction, emotional wellbeing and vitality than those who are married. We did not find evidence in support of hypoth-
esis 5 that the SWB of lone parents with resident children varies by gender, but differences in SWB were found in relation to non-residential children. In line with the previous literature, our findings for life satisfaction (H. 1) show that divorced, single men with non-resident children below the age of 18 report the lowest estimates, but these are also sensitive to the incidence of a recent divorce (Andress and Bröckel 2007; Leopold and Kalmijn 2016; Leopold 2018). This was not the case for women, where the life satisfaction estimate for a recent divorce was not statistically significant. Our findings for emotional wellbeing (H. 2) are also in line with studies which have examined partnership status in relation to other hedonic measures of SWB, such as happiness (Dolan et al. 2008; Kohler et al. 2005). The results for vitality (H. 3) are also consistent with previous findings for eudemonic measures of SWB (Ryff 2014), indicating that the differences between those married and those who are single divorcees is larger for mothers than for fathers. Concerning hypothesis four and parenthood specifically, our results have shown that single parents, following a divorce, are more likely to be (H. 4.1) less satisfied with their lives, (H. 4.2) experience a greater frequency of negative emotions than positive ones, and to feel (H. 4.3) less vigour for their daily lives, in terms of perceptions of their energy levels and overall health. Concerning hypothesis 4.3 , our results are in contrast to previous literature in finding differences in levels of vitality reported by married and single parents. More broadly, these conclusions are in line with previous research (Baronowska-Rataj et al. 2014; Collings et al. 2014; Dykstra and Keizer 2009; Pollmann-Schult 2018). It is, however, striking for both its consistency across multiple dimensions of SWB, and also by gender.

We fail to find evidence in support of gender differences (H. 5.1, H. 5.3) in the SWB of lone mothers and fathers, specifically in the case of those with resident children. The literature concerning intensive motherhood argues for gender differences in the SWB of parents, however in the case of lone parents with resident children, we fail to find evidence to support this. This is perhaps suggestive of the ways that the pressures associated with parenting may manifest somewhat more unequally within a marriage, but in a manner more congruent with a traditional marital division of parenting labour. In the case of lone parents, however, both men and women may feel those parenting pressures in a more similar fashion.

We find little evidence of gender differences between lone parents with residential children, however, these findings are in line with the literature concerning hedonic measures of SWB, such as emotional wellbeing and happiness (Dolan et al. 2008; Louis and Zhao 2002). One argument as to the cause of this inconsistency has been called gender differences in affect intensity (Fujita et al. 1991). This means that men and women may report similar levels of overall happiness, but women typically report higher frequency of both positive and negative emotions. These greater values for explicitly positive or negative emotions are therefore balanced out in overall measures. We did find that the largest negative estimate for SWB is found for divorced, single mothers with non-resident children below the age of 18 and emotional wellbeing. We also found that this difference in emotional wellbeing is larger than the corresponding deficit for divorced, single fathers with non-resident children under the age of 18 , however these models are separated by gender and so
are not directly comparable. Moreover, when comparing men and women specifically within the same model (Table 10.6), we find little evidence for gender differences in emotional well-being between divorced, single parents with resident children.

We did, nevertheless, find evidence of a negative impact of non-residential children below the age of 18 on life satisfaction in models that did make comparisons by gender. Our results partially confirmed hypothesis 5.1 that divorced fathers who are still single experience the lowest levels of life satisfaction, although only in the case of those with non-residential children below the age of 18 . This is indicative of the potential centrality of contact with children in how fathers evaluate their lives. These findings are in line with previous literature on the association between lower life satisfaction, divorce and the changes in living arrangements between fathers and non-resident children below the age of 18 (Andress and Bröckel 2007; Leopold 2018; Leopold and Kalmijn 2016). However, this pattern did not hold for the emotional wellbeing and vitality outcomes, with no statistically significant coefficient for men with non-resident children below the age of 18 . In the case of mothers, we find the largest differences in SWB between divorced, single mothers with nonresident children below the age of 18 , when compared to divorced, single mothers with resident children. For each of these groups, the numbers of cases are relatively low, especially for mothers. We advise caution with respect to the stability of these results until further research can replicate or disconfirm them.

These differences by gender in relation to the particular dimension of SWB examined, when analysing specifically the impact of non-resident children below the age of 18 amongst single parents, underpin the importance of considering the multidimensionality of SWB. For men, the experience of a recent divorce and separation from children may negatively impact life satisfaction, but not other dimensions of SWB. It does not appear to be associated with a greater likelihood of experiencing negative emotions or lower vitality. For divorced, single mothers with non-resident children below the age of 18 , a different pattern emerges. They show a greater likelihood of experiencing a higher frequency of negative emotions, when compared to divorced, single mothers with resident children below the age of 18 .

It is worth noting that the lower levels of SWB reported by the divorced and single were strongly mediated by controls for socio-economic characteristics for income, employment and education. This suggests clear benefits of work and employment for the SWB of parents. It also points to avenues of further research regarding the employment choices available to lone parents, the benefits of each and what factors may mediate these choices.

The data we have used here is cross sectional, which presents several limitations for the substantive interpretation of the model estimates. For instance, we are unable to control for unobserved characteristics potentially correlated with both lower levels of wellbeing and divorce. We are also unable to monitor the differences of adaptation over time to partnership and parenting states, which is known to be an important explanatory factor of gender differences in wellbeing (Leopold 2018). Another limitation concerns the geographical (regional) reach of our database, which is limited to the region of Flanders. Furthermore, our analysis is also restricted
only to those who ever marry, with no more than one divorce and excludes those entering lone parenthood through any avenue other than marital dissolution. Our findings apply only to people who fall within these criteria. This is important because people adhering to less egalitarian norms may be more likely to enter into marriage, rather than cohabiting unions. These traditional values may be associated with how much partnership dissolution and parenting alone impact SWB.

Future research on this topic should investigate lone parenthood using longitudinal data to address the cross-sectional limitations of our study. This would allow for a better assessment of causality by controlling for unobserved characteristics, which may be correlated with both divorce and SWB. In addition, a cross national perspective would allow for a broader assessment of how factors such as family (e.g. custodial arrangements/regulations) and welfare state/labour market policies (e.g work and family life balance policies) attenuate or aggravate the associations discussed here. Finally we need larger samples of divorced, single fathers, both with and without residential children, for the analytical power necessary to address these gender specific research questions.

### 10.6 Conclusion

In this study we have examined the association between gender, partnership, lone parenthood following divorce and subjective wellbeing. Taking a gender focused approach and using the cross-sectional Divorce in Flanders Survey (2009), we compared divorced, single parents to married parents, and also to each other. Our analytical approach acknowledged the multidimensionality of SWB by examining indicators of life satisfaction (cognitive), emotional wellbeing (hedonic) and vitality (eudemonic). The results we have presented confirm the positive association between partnership and SWB on one hand, and the negative one between divorce, single parenthood and SWB on the other. This is true across all dimensions of SWB, including measures of life satisfaction, emotional wellbeing and vitality. Our results have also shown the detrimental impact of having non-residential children below the age of 18 on SWB. This is true for both lone mothers and lone fathers, but with important differences by the dimension of SWB analysed. Lone fathers with nonresidential children below 18 reported lower life satisfaction, whereas for lone mothers it was emotional wellbeing. In terms of how lone parenting with residential children impacts subjective wellbeing by gender, we find little evidence of differences between lone mothers and fathers across multiple measures of SWB. This is in contrast to research relating to "intensive motherhood", which predicts that parenting may affect the SWB of mothers more negatively than fathers.

This research contributes to the literature regarding the relationship between divorce and the lower levels of SWB reported by divorced, single parents. It documents in considerable detail the quality of life of these parents, their lower satisfaction with their lives, their experiencing a greater frequency of negative than positive emotions and their feeling of lower vitality. The gender specific negative impact of non-residential children below the age of 18 , and how this varies across different
dimensions of SWB is an also interesting avenue for future research. Moreover, these results raise important questions regarding the wellbeing, socio-economic and psychological outcomes of children from these families (Amato 2000, 2001; Amato and Keith 1991). Unhappy lone parents, facing the double burden of work and family life, are unlikely to have the same amount of parenting resources, such as time and energy, as married parents. These challenges are critical and may carry intergenerational implications. Thus, a vital question for future research concerns how lower levels of SWB may relate to changes in parenting practices; and how this may impact children of different ages. Because we live in societies with high levels of marital dissolution, and growing numbers of parents experiencing periods of lone parenthood, answers to these questions becomes more imperative.

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## Appendix

## Pairwise Pearson Correlations Emotional Wellbeing \& Alpha Cr

|  | Depression | Sadness | Enjoyment | Happy |
| :--- | :--- | :--- | :--- | :--- |
| Depression | 1.000 |  |  |  |
| Sadness | 0.598 | 1.000 |  |  |
| Enjoyment | 0.394 | 0.411 | 1.000 |  |
| Happy | 0.434 | 0.453 | 0.618 | 1.000 |
| Alpha Cr. | 0.790 |  |  |  |

Pairwise Pearson Correlations Vitality \& Alpha Cr

|  | Health | Energy | Restless | Get going | Effort |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Health | 1.000 |  |  |  |  |
| Energy | 0.328 | 1.000 |  |  |  |
| Restless | 0.311 | 0.177 | 1.000 |  |  |
| Get going | 0.361 | 0.333 | 0.378 | 1.000 |  |
| Effort | 0.385 | 0.317 | 0.385 | 0.623 | 1.000 |
| Alpha Cr. | 0.737 |  |  |  |  |

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# Chapter 11 <br> Knotting the Safety Net. A Multi-Actor Family Network Approach in Divorce Research 

Vera de Bel and Dries Van Gasse


#### Abstract

Drawing on three theories in sociology, this chapter presents a theoretical framework for studying the consequences of parental divorce for the structure of relationships within the nuclear family and between nuclear and extended family members. First, interdependence as defined in family systems theory (FST) is explained. Second, the configurational approach (CA) is introduced. CA stresses the individual perspective in defining the family network and the non-static influence of configurations on the individual. Empirically, CA requires the collection of ego (personal) network data about family members and their relationships, the socalled Family Network Method (FNM). Third, the concept of a sharing group (SG) is introduced. SGs are characterized by the joint production of a common good by groups of individuals, subject to three types of interdependence: functional, structural and cognitive. Building on insights from FST and CA, the Multi-Actor Family Network Approach (MAFNA) is introduced, which conceives of families as SGs. Next, methods for the empirical implementation of MAFNA, requiring the collection of information about all family members and their relationships, are sketched, as well as social network analysis techniques for such data. Finally, the chapter discusses what kind of answers and questions in divorce research may be addressed using MAFNA.


Keywords Divorce • Family networks • Social networks • Interdependence • Resilience • Family well-being

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### 11.1 Introduction

The divorce rate in Europe has doubled over the last 50 years (Eurostat 2019). In 2007, roughly $15 \%$ of all children in countries such as the Netherlands and Belgium were growing up in single-parent households (OECD 2011). Although previous research has extensively studied the consequences of parental divorce for children (e.g., Amato 2010, 2014; Amato and Keith 1991; Emery and Forehand 1996; Hetherington and Stanley-Hagan 1999; Kelly and Emery 2003), for the divorcing parents (e.g., Amato 2000; Kitson and Morgan 2006), and for the grandparental generation (e.g., Jappens and Van Bavel 2016; Westphal et al. 2015), the consequences of parental divorce for the relationships within the nuclear family, i.e., parents and children, and between nuclear and extended family members, i.e., grandparents and aunts/uncles, have not been studied as such. This is remarkable because relationships with extended family members may not only be affected by the parental divorce (e.g., Ahrons 2007), but extended family members also form the knots in the nuclear family's safety net and therefore contribute to family resilience in families that experience divorce (Black and Lobo 2008; Hess and Camara 1979).

A well-known theoretical approach in studying the structure of relationships within the nuclear family, and between nuclear and extended family members, is the Family Systems Theory (FST) (Cox and Paley 1997; Minuchin 1974). As explained in Sect. 11.2, FST is a logical starting point for MAFNA because it acknowledges the interdependence between family relationships. Following this, the four pillars of the configurational approach (CA) are introduced. In addition to interdependence, CA stresses the individual perspective in defining the family network and the - nonstatic - influence of family configurations on the individual. When applied empirically, CA requires the collection of ego (personal) network data about family members and their relationships, which is called the Family Network Method (FNM) (Widmer 2016; Widmer et al. 2013). Further to this, the concept of a sharing group (SG) is introduced. Sharing groups are characterized by the joint production of a common good by groups of individuals, subject to three types of interdependence: functional, structural, and cognitive (Lindenberg 1997, 2015). Building on the insights from FST and CA, Sect. 11.3 introduces the Multi-Actor Family Network Approach (MAFNA) to apply the SG concept to families. Next, methods for the empirical implementation of MAFNA requiring the collection of information about all family members and their relationships is sketched, as well as the social network analysis techniques available for such data. Section 11.4 discusses what kind of answers and questions in divorce research may be addressed using MAFNA.

### 11.2 Theory

### 11.2.1 Family Systems Theory

A basic assumption in Family Systems Theory (FST) (Cox and Paley 1997; Minuchin 1974) is that family relationships are interdependent, implying that the consequences of change in one relationship are not limited to this specific relationship but may also affect other family relationships. A way to understand interdependence is to consider smaller groups, called subsystems, within the larger family system. For example, the subsystem of the nuclear family exists within the larger family system that includes paternal and maternal family members. Since these subsystems consist of people who belong to the larger family system, subsystems interact and often overlap.

Regarding the family as a system deepens our understanding of how shocks, or stressors, affect the system. These shocks can be internal or external (Olson and Craddock 2000). Internal shocks like divorce are caused by the relational quality and/or strength of the family system, while external shocks like death have a cause outside the family system. In the context of divorce, it is reasonable to assume that relational tensions preceded the decision to get divorced and that these tensions are likely to continue afterwards. Hence, divorce may have a ripple effect in the family network. This means that chains of changing relationships affect not only the nuclear family but also members of the extended family.

Besides these shocks, there are also buffers. Like stressors, these buffers can be divided into external and external buffers. External buffers restrain families from deciding to divorce. For example, some countries are more family-centred, perhaps as a result of their family policies, and offer a context in which family systems are less likely to fall apart (Saxonberg 2013), while in others, culture and social networks influence divorce decisions (Afifi et al. 2013). Internal buffers prevent family members from disconnecting after divorce. The extended family system, for example, helps nuclear families to bounce back after divorce (Van Gasse and Mortelmans 2019). Because these transitions are longitudinal by nature, it is important to take dynamics, change and time into account in the analysis of changing family systems (Van Gasse and Mortelmans 2018).

Family systems theory was developed in response to psycho-analytical therapy in which "[...] therapists noted that it was more efficient to work to change the entire system than to try to change each constituent member of that system." (Fingerman and Bermann 2000, p. 10). The principles of FST are difficult to operationalize and therefore not often empirically tested (Whiteman et al. 2011). One of the proposed solutions for this lacuna is to divide the system into "smaller - empirically analysable - relational units" (de Bel et al. 2019, p. 3). However, dividing the system into smaller units results in the 'parts versus wholes' dilemma (see e.g., Segaric and Hall 2005): the system cannot be understood completely if one part, which is a system in itself, is studied in isolation.

$\overline{-\quad-\quad=}=$ RELATIONAL INFORMATION REPORTED BY AT LEAST ONE OF THE TWO CONNECTED ACTORS

Fig. 11.1 Schematic representation of the Multi-Actor Family Network Approach and its methodological alternatives. The lightning bolt represents parental divorce

This 'parts versus wholes' dilemma also becomes apparent in the upper part of Fig. 11.1. The dyadic approach analyses pairs of relationships; for example, the relationship between the two parents or the parent-child relationship. In a dyadic approach, the dependency on and between the surrounding relationships in the family network is not investigated and therefore the approach does not offer the ability to analyse the relational interdependence assumed in FST.

### 11.2.2 The Configurational Approach

The Configurational Approach (CA), developed by Widmer (2016), is based on Norbert Elias's notion of a configuration as "a structure of mutually oriented and dependent people" (Elias 1978, p. 261). When applied to families, CA rests on four pillars. First, the concept of a family is not necessarily limited to kin relatives. Friends and neighbours can also be considered part of the family. Second, CA considers the larger network of family relationships in which dyads are embedded. Third, CA assumes a mutual dependency between the individual level, such as individual choices or identity, and the structural level, i.e., the individual's perception of the network. Finally, family configurations are considered to be non-static and may change in response to time and space (Widmer 2019).

Widmer et al. (2013) implement CA in the family network method (FNM). In this method, one central family member, the mother, is interviewed about her relationships to 'significant' family members, referred to as alters, and represented by the ego network approach in Fig. 11.1. The significant family members are not predefined but determined by ego, hence non-kin, such as friends and neighbours, can be included when mentioned as significant others. In addition, ego reports about the mutual relationships between the significant family members. In social network analysis, this is called an ego network with alter-alter information reported by ego (Robins 2015). Furthermore, information about the type of relationship such as emotional support or conflict, and family roles that the significant others fulfil is also collected.

Configurations characterize the composition and structure of the family network. By performing a factor analysis on the roles of and relationships between the significant family members, the family configurations that characterize the network can be outlined (Widmer et al. 2012). For example, the network may be focused on friends, family, the partner or siblings (Widmer et al. 2012, 2013). Additionally, it is possible to analyse whether certain configurations are more prominent in divorced or intact families (Widmer et al. 2012) or to what extent mothers embedded in certain configurations are socially or psychologically vulnerable (Widmer et al. 2013).

FNM has two major limitations. First, little information is collected on nonsignificant family members. For example, ego might not mention her ex-parents-inlaw as a significant family member. Consequently, it remains unknown whether the ex-parents-in-law are deceased, or are alive but insignificant to ego. Second, data collected according to FNM results in a one-sided observation of the system that we aim to understand, because it only reports the perception of ego and does not contain perceptions of the other family members.

To summarize our arguments so far: FST offers a natural starting point for explaining interdependence between family members and how the family can be regarded as a dynamic system when processing shocks like divorce. However, a methodological means of implementation that takes this interdependence into account does not yet exist. CA deepens our understanding by characterizing the family network by several compositional configurations and offers a methodological means of implementation by introducing the family network method (FNM) (Widmer 2016; Widmer et al. 2013). However, this method does not distinguish between non-significant and non-existent family members, and it only approaches the system from ego's perspective. A third approach, sharing groups (SG) and thus far not applied to family sociology, may provide further insight into the nature of interdependence within families by explaining the functioning of the family as the preservation, or joint production, of family well-being. The synthesis of these three theories results in the theoretical foundation of MAFNA, which is introduced after the theory section.

### 11.2.3 Families as a Sharing Group

The concept of a sharing group (SG) (Lindenberg 1982, 1997, 2015) refers to a group of people who together produce a common good. Individuals operating on their own would not be able to produce this good, and are hence dependent on the other members of the group. The size of a sharing group depends on the number of people needed to produce the common good, and it is important that all members of the sharing group contribute in order to produce it.

Some goods require joint production, even in a market society with a high level of welfare, in order to produce the common good (Becker 2013; Lindenberg 1997). For example, as an SG, a sports team strives to produce the common good of winning a match, for which they make the joint production of training every week and preparing for the match. Highly specialized work teams may focus on the common good of developing a new product, which requires the joint production of daily discussion, aligning the members' tasks and sharing thoughts about their work (Fetchenhauer et al. 2006).

Although the notion of sharing groups has not previously been applied to family sociology, there is some theoretical overlap between the concepts introduced so far. According to Widmer (2019), Elias saw individuals as dependent on other individuals, forming configurations in which they fulfil each other's needs and provide each other with resources, a form of cooperation similar to the interdependence of joint production.

Sharing groups are characterized by multiple interdependencies between their members: functional, structural and cognitive (Lindenberg 1997, 2015). Functional interdependence means that all group members need to contribute to produce the common good. Structural interdependence, described as relational dependencies within groups, which can best be explained as not having to be directly connected in order to be affected by other relationships. Finally, sharing groups are characterized by cognitive interdependence, which refers to the interpersonal perceptions of role-related appropriate behaviour. In an organizational setting, this depends on a group member's perception of roles, for instance, managers and staff, relationships and tasks within the group, and what this person considers to be appropriate behaviour, for instance promoting an employee who performed well.

### 11.3 The Multi-Actor Family Network Approach

MAFNA is an extension and synthesis of the ideas presented in FST, CA and its methodological implementation, as well as an application of SG to the family context. Theoretically, it embraces the idea of interdependence between family members. The joint production of the common good of family well-being explains the functioning of the family, and takes into account the interdependencies that characterise families as sharing groups. Methodologically, just as CA was implemented in

FNM, MAFNA can also be implemented in data collection (de Bel and van Duijn 2019).

If we apply the concept of SG to the context of the family, we must identify its common goal as the preservation of family well-being. An individual family member's well-being depends for a large part on the well-being of the other family members. Similarly to the 'parts versus wholes' dilemma (Segaric and Hall 2005) in FST, family well-being is more than the sum of all family members' individual well-being. Steverink et al. (2005) argue that (individual) well-being is produced by the multi-functionality of the relationships in the network, which can be interpreted that well-being will be highest if relationships fulfil multiple needs (Lindenberg, personal communication, October 17, 2018). In other words, the joint production, of family well-being, keeps the relationships active and, if necessary, activates one of its functions, namely to serve as a safety net. This may explain why, if parental divorce or other life course adversities occur, family well-being can still be preserved.

Functional interdependence in the context of the family implies that family wellbeing depends on the contribution of all members. If family members are not able to contribute, this will not only affect their own individual well-being, but also the well-being of the family as a whole. Structural interdependence in the context of the family implies that other family members may also be affected by the conflict in the parental relationship, which may endanger the joint production of family wellbeing. Structural and functional interdependence are distinguished as separate concepts, but are intrinsically entwined. In network analysis terms, this is referred to as mutual dependency between the structure of the network and individual level outcomes (Steglich et al. 2010). In families, it means that family well-being is affected by the structure of all family relationships, and that embeddedness in the family network affects individual family members' well-being. Individuals who feel well are more likely to 'give' more affection, thus strengthening the family relationships. Whereas family members who are having a hard time might turn to their family members for support. And if family relationships are supportive, people who are well embedded in the family network are likely to feel better.

Cognitive interdependence in the context of the family implies that family members have multiple roles. For example, family members normatively expect parents in their parental role to comply with the role-oriented normative pattern with respect to their children. However, parents are also children and siblings in their original nuclear family, and are expected by their parents and siblings to behave according to those roles as well. During the process of parental divorce, cognitive interdependence shifts because family roles and perceptions change. Divorce may lead to negative perceptions, justified or not, about other family members, which leads to certain relational behaviour that can potentially cause a vicious circle of worsening family relationships. Furthermore, divorced parents are no longer partners and have to give meaning to the new roles that they play in each other's lives. Their role as a (former) in-law family member most likely changes or disappears as well. Children and grandparents have to reconsider their roles: children have to position themselves
with respect to two separate parents, while grandparents might be inclined to revert to their previous roles as caretakers in order to preserve family well-being.

The bottom part of Fig. 11.1 shows the multi-actor family network approach. The figure shows that the nuclear family (parents F-M and their child C) constitutes one subsystem in a larger family system. At the same time, both parents are part of their own nuclear family, i.e., the children's grandparents, aunts, and uncles, depicted by (G-G-F-U) on father's side and (G-G-M) on mother's side in Fig. 11.1. This approach results in more information about exchange in family relationships and, if the data are longitudinal, the consequences of change in the network following parental divorce for family well-being.

### 11.3.1 The Delineation of Family Networks

Instead of only asking ego about his/her relationships, in the multi-actor family network approach, multiple members of the family are asked to report about their relationships. In order to determine who these multiple informants should be, a meaningful delineation of the family network is needed. When delineating the network, it is important to strike a balance between inclusiveness and relevance. In theory, nuclear family networks can always be extended with first-degree, second-degree and more remote relatives, and hence can never be considered 'complete.' For the purpose of the multi-actor family network approach, individuals should only be included if they have a meaningful family relationship with the nuclear family network.

An important point to consider in the delineation of the family network is the position of the divorcing parents and the roles of the other family members in the network. Although all family members are related by blood or marriage, the - former - couple is most central in the network. The parental divorce makes the delineation of the family network even more important, where it is expected that the members of the family as a sharing group are concerned about the well-being of the children of the divorcing parents. Typically, these are the first-degree relatives of the divorcing parents, i.e. the nuclear families they come from.

Acknowledging that other people, like friends and neighbours, may also be important to family members and they might even feel like family (Widmer 2016, 2019; Widmer et al. 2013), the sharing group argument leads to a rather strict delineation of the family network consisting of parents, children, grandparents, aunts/ uncles, and potential stepfamily.

### 11.3.2 Implementation

A family survey instrument (or interview scheme) needs to be developed that retrieves family network data from multiple actors. The methods to retrieve such data may have a qualitative or quantitative focus, or both. Data with a quantitative
focus can be collected using a survey instrument to be filled out by all (or at least several) family members (see the study by de Bel and van Duijn 2019). Data with a qualitative focus can be collected by interviewing multiple members of the same family about their family relationships (e.g., Van Parys et al. 2017 developed a multi-family member interview method).

At the individual level, family members' well-being can be assessed using several well-being measurement instruments. To assess the network, several relational measurements can be used. First, questions about proximity, like "who lives nearby?", and contact (face-to-face and phone/letter/digital) between the family members can be asked because they offer an opportunity for qualitative interpretation of family relationships, such as affection, support or conflict. Second, qualitative interpretations of family relationships are measured, such as affection (e.g., by asking: "to whom do you feel close?"), emotional ("with whom can you talk about emotional problems?"), material ("from who do you receive money or goods?"), and instrumental ("whom do you help with household tasks?") support. Differences between giving and receiving can be unravelled ("who can you go to for advice" or "who comes to you for advice?"). This way, different perceptions between family members can be compared. In addition, the parents, as central actors of the network, can be asked about their perception of the network ("which family members are not on speaking terms?").

Which social network analysis methods exactly are suitable for these data is a question that remains to be explored. We will briefly discuss which type of social network analysis models are eligible. Exponential random graph models and their extensions (Caimo and Friel 2014; Robins et al. 2007) might be suitable for comparing relational patterns between divorced and non-divorced family networks. If data are collected longitudinally and repeated measurements are available, statistical models that make it possible to study change in the network as well as change in individual attributes, such as well-being, can be used (Snijders et al. 2010; Steglich et al. 2010). Actor-based co-evolution models (Snijders et al. 2010; Steglich et al. 2010) enable us to analyse the mutual dependency between the individual level and the structural level.

### 11.4 Conclusion and Discussion

### 11.4.1 Conclusion

Extended family members have been under-studied in family and divorce research. This is remarkable because relationships with extended family members may not only be affected by the parental divorce (e.g., Ahrons 2007), but extended family members also form the knots in the nuclear family's safety net and therefore contribute to family resilience in families that experienced divorce (Black and Lobo 2008; Hess and Camara 1979). This chapter introduced MAFNA, which synthesizes
three sociological theories. FST offers a natural starting point for explaining interdependence between family members and how the family can be regarded as a dynamic system when processing shocks such as divorce. However, a methodological implementation that takes this interdependence fully into account does not exist yet. CA deepens our understanding by characterizing the family network by several compositional configurations and offers a methodological implementation by introducing the family network method (FNM) (Widmer 2016; Widmer et al. 2013). This method, however, does not distinguish between non-significant and non-existent family members and it approaches the system from ego's perspective only. Seeing families as sharing groups enables us to study the joint production of the common good of family well-being and explains the functioning of the family, while being aware of the interdependencies that characterize families.

MAFNA aims to understand the family as a whole. It addresses the ontological question of what a family is by using all the different perspectives of the actors who are active in the structure of a family. The approach extends and synthesizes ideas developed in FST and CA by implementing the idea of sharing groups. MAFNA approaches change from the perspective of resilience: The extended family does not only function as a safety net, but also as a way to rebound. The approach is not limited to one methodological perspective, as both qualitative and quantitative methods are suitable for empirical analysis. Its main requirement is the thorough gathering of rich data in order to study the family network in transition after parental divorce.

### 11.4.2 Discussion

MAFNA may provide new insights into well-known research questions in the field of family and divorce research. Many studies have investigated how children's wellbeing is affected by parental divorce (e.g., Amato 2010, 2014; Amato and Keith 1991; Emery and Forehand 1996; Hetherington and Stanley-Hagan 1999; Kelly and Emery 2003). The first benefit of MAFNA in such research is that it leads to an understanding of the interdependence of well-being amongst various family members. Second, by collecting relational data between all family members, MAFNA makes it possible to investigate how an individual's well-being is associated with the relational structure formed by the various ties between family members (for example the relational structure a loyalty conflict, see the work of Amato and Afifi 2006). Third, MAFNA offers the ability to focus either on the network as a whole, or to specifically focus on one of the various family roles. Consequently, we can take into account the cognitive interdependence of well-being by investigating whether well-being is affected by changing family roles. This approach may provide a different answer to the question of how children's well-being is affected by the process of 'parentification' (e.g., Earley and Cushway 2002).

MAFNA may also provide an opportunity to answer new questions, such as how compensation mechanisms arise after parental divorce. For example, support offered by the uncle from father's side (U, Fig. 11.1) might become inaccessible for family
members on mother's side if both parents maintain a negative relationship with each other. The child (C) can be seen as a natural bridging node between father's kin and mother's kin. In the period after divorce, the bridging function is at risk. The establishment or re-establishment of additional support ties between both sides of the family network (U-M) may compensate for the negative impact on well-being, offering new routes for exchange and maintaining family resilience.

Despite the interesting research questions that MAFNA can help us to answer theoretically, it should be noted that the collection of family network data is not easy, as explained in more detail by de Bel and van Duijn (2019). Approaching families, informing family members about the - sometimes sensitive - questions that they will be asked, and obtaining the informed consent of (preferably whole) families is difficult, especially in divorced families where, in accordance with the theory laid out in this chapter, the family system is likely to be less stable. This results in a higher risk of incomplete data due to family members being harder to reach and/or less willing to participate. It is clear that more research on implementing MAFNA in data collection is needed.

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## Part IV

Divorce and the Parent-Child Relationship

# Chapter 12 <br> Public Attitudes Toward Shared Custody: The Czech Republic 

Petr Fučík


#### Abstract

In the beginning of the existence of divorce as a social institution, parenthood was not as deeply problematized as the moral aspects of the partnership. In contrast, current public and scientific debates are most frequently involved in the questions of the impact of divorce on the children. Shared custody can be understood as a result of this cultural shift. The knowledge about public attitudes toward this topic and its social differentiation is limited. This study presents a unique source of data on shared custody attitudes from EVS (European Values Study) and CHPS (Czech Household Panel Survey) surveys conducted recently in the Czech Republic. The results show there is a substantive distinction between the attitudes of men and women and that the acceptance of shared custody is higher in younger age groups. No differences according to the social and economic status of respondents and their family backgrounds were found. Concerning the broader attitudinal contingency, we found no relationship between egalitarian gender attitudes and the acceptance of shared custody, but conservative attitudes toward divorce consequences increase the acceptance of shared custody.


Keywords Divorce • Shared custody • Joint physical custody • Attitudes • Czech Republic

### 12.1 Introduction

Although the research on shared custody is growing, little is known about public attitudes toward this issue. Few studies concern attitudes toward shared custody among people who have divorced (Smyth and Weston 2004; Fransson et al. 2016); some examine the attitudes of professionals (Majerčíková 2017), judges, or attorneys (Selleck et al. 1989; Kruk 2018; Braver and Lamb 2018), but no recent

[^33]empirical data about the attitudes of the general public are available (cf. Coleman et al. 1999). This chapter examines public attitudes toward shared custody, using the opportunity to analyze data from two surveys conducted recently in the Czech Republic. The relevance of this topic is based on sociological arguments. As a relatively new phenomenon, shared custody lacks socially institutionalized forms and routine patterns of social action. The roles of social actors, model situations, key points, and even linguistic expressions are not fixed. In such a situation, an important role is played by transaction costs (Cherlin 1978, 2004), based on the level of societal acceptance of given forms of social action. In the early stages of institutionalization, it is important to know how thorny the paths are that are to be walked by the people practicing any form of shared custody.

The review part of this chapter presents an overview of the sociological explanations for the emergence of post-divorce shared custody arrangements and briefly reviews the most frequently presented topics in the literature on shared custody. Specific features of the Czech post-socialist context are then outlined, and particular hypotheses are developed. The analytical part of this chapter is introduced by the data and method specification, and it offers descriptive and exploratory results, which are discussed in relation to theoretical expectations derived from knowledge about parents who elect to share post-divorce custody.

### 12.2 Shared Custody ${ }^{1}$ : A New Phenomenon in Post-Divorce Child Custody Arrangements?

In the beginning of the existence of divorce as a social institution, parenthood was not considered to be a problem as much as the sacred, moral, and economical aspects of the partnership itself were (Cunningham 2005; DiFonzo 2014). In contrast, the current public debate as well as the academic one is most frequently involved in questioning the impact of divorce on the children (Amato 2000, 2010; Härkönen et al. 2017). While in the past, the interests of the children were certainly not a decisive factor in divorce proceedings, current divorces are largely organized with the utmost respect for the child participants (Elkin 1987; Kruk 2018). The logic behind custody decisions has changed over the past century from a patriarchal model in which the father, as the head of the family, was automatically entitled to the children, to a model giving preference to the mother, based on the idea of the natural priority of maternal care (Cancian and Meyer 1998; Cancian et al. 2014). Currently, ideas about the rights of the child to both parents and the rights (and

[^34]duties) of both parents to fulfill their parental roles are at the forefront (Alstott 2004; Emery 2016).

From a historical and theoretical perspective, we can identify several societal processes leading to the increasing social relevance of arguments in favor of shared custody arrangements. The rising divorce rates across almost all western societies during the second half of the last century has expanded the number of children whose custody arrangements are decided partially by the parents and children themselves and partially by courts or other parties. At the same time, gender roles changed profoundly, so the traditional split between the private sphere as feminine and the public sphere as masculine no longer exists in the same force (Cooke 2006; Kaufman 2000; Kalmijn and Poortman 2006; Goldin 2006). As a result, parenting is not the exclusive central point of women's lives nor the symbolic source of women's public identity. At the same time, gender role changes led to the phenomenon informally called "new fatherhood," (Wahlstrom 2010; Doucet and Lee 2014) which draws attention to the failure of the model of the distant father. "New fathers" try to establish new forms of fatherhood, rejecting the stereotypical forms of fathering connected almost exclusively to the role of the father as a provider or as the source of patriarchal authority in favor of different nurturing styles (Pasley et al. 2014). These parental practices can be interpreted as part of a broader cultural shift concerning the ongoing development of the societal definition of a desirable childhood (or parenthood). The initial stages of this trend are deeply rooted in history (as noted by Ariès 1962) and current practices are influenced by relatively recent impulses from Bowlby's (Bowlby 1988) attachment theory on the academic side and intensive parenting (cf. Shirani et al. 2012) on the popular side. Hand in hand with these cultural trends, postmodern western families have significantly lower numbers of descendants, who therefore receive highly specialized, sophisticated, and thoughtful attention (cf. Badinter 1981; Bartlett and Stack 1986; Arendell 2000).

In this context, it is to be expected that the practice of simply putting the vast majority of children into the sole custody of their mothers will fade as a part of the disappearing world of traditionally defined gender roles and conceptions of childhood. As the historical memory of society is always limited, there is a strong tendency in the Czech Republic to understand the sole custody arrangement as the norm. Adopting a broader historical perspective, it seems more accurate to interpret this arrangement rather as a relatively brief (and very interesting) interplay between the older patriarchal logic of the exclusive rights of the father and the more recent egalitarian logic of the irrevocable rights of the child to a relationship with both parents and vice versa (Kruk 2018; Braver and Lamb 2018).

### 12.3 Research on Shared Custody

Although the public discussion understands shared custody as a new phenomenon, a significant body of research has become available since its introduction in the later twentieth century, and recent studies have increasingly taken the form of
meta-analysis (Bauserman 2012; Baude et al. 2016; Nielsen 2014, 2017, 2018a) or review studies (Steinbach 2018). The most common subjects of empirical studies are the determinants of the choice of shared custody (Fox and Kelly 1995; Wilcox et al. 1998; Fransson et al. 2016), its practice in various types of families (Birnbaum and Saini 2015), the legal and economic aspects of shared parenting, and the adaptation of adults and children to this arrangement (Bauserman 2002, 2012).

As in divorce research, the most frequent (and politically sensitive) topic of studies on shared custody is the assessment of its impact on children. This can also be understood as a subset of the broader body of research conducted on the impacts of divorce. ${ }^{2}$ A number of studies are devoted to the various aspects of the relationship between different post-divorce custody arrangements and the various outcomes for the children. Better outcomes for children raised in shared custody as compared to other post-divorce arrangements is confirmed repeatedly, and consensus on this issue reaches almost across scientific literature (Nielsen 2018a, b; Sanford and Votruba 2018). But questions remain about the causality of this relationship (Smyth et al. 2016). To what extent are these results due to families choosing shared custody? Logically, shared custody is often preferred in families more likely to be characterized by higher income (Bauserman 2002; Fehlberg et al. 2011; Cancian et al. 2014), lower levels of conflict between parents or between parents and children; families in which the divorce process was easier; and families with both parents involved in the child care (Juby et al. 2005) and motivated to cooperate even if there is a break up (Smyth 2004; Gunnoe and Braver 2001). These selective mechanisms serve as important justifications for advocates of sole custody arrangements to dismiss the findings of better outcomes for children commuting between two homes. Original empirical research as well as extensive metanalytical and review studies show systematically that even if we control for the level of parental conflict and other circumstances, shared custody still produces the least negative effects, compared to other post-divorce custody arrangements (Nielsen 2017, 2018a; Steinbach 2018).

### 12.4 Public Attitudes Toward Shared Custody

In sociological theory, the word attitudes refers to the normative aspects of social institutions. Compared to values, which are deeply rooted in personal moral beliefs and as such are more permanent orientation structures, attitudes stem from opinions on specific subjects and create subjective normative feelings about it (Smyth 2016). The relevance of attitudes is based on the concept of the transactional costs of social action (Lauer and Yodanis 2010). General public attitudes on shared custody form the environment for social actions, the transactional costs of which rise with the level of negative attitudes, rejection, or stigmatization of the given forms of the

[^35]social action. Although post-divorce custody arrangements are the subject of heated public debates, there is no sociological research on its reflection in the general public.

Despite convincingly positive empirical results, the argument about shared custody continues in many western countries; debates are reopened, and the legislation itself, as well as the legal practice, is still being developed (Fehlberg et al. 2011; Kruk 2018). The general public debate and the scholarly production seem often to split into two different worlds with only a minor overlap. Although empirical research informs the professional discussions and decisions (hopefully), the public debate is driven by different sources.

In the post-Communist countries, the situation is even more problematic because of the permanence of legal practices favoring sole custody and the relatively slow dynamics of gender role changes (cf. Lišková 2018). Due to delays in opening the discussion and adopting new legal institutes, shared custody did not emerge as a real option until around 2000. Because of the limited time and (still) marginal quantity of families practicing shared custody, there is no research verifying whether the basic patterns found in empirical research hold in the specific context of the postCommunist society, with its specific history of gender role changes, ${ }^{3}$ high divorce rates, and traditional family values. Therefore, the public debate is polarized, driven by media images of divorced families with children shuttling between parents (Taševská 2017; Majerčíková 2017) and feelings of discrimination (Fafejta 2018). The empirical findings of research on shared custody are reported only selectively, used as arguments for various interest groups or activists.

In the Czech Republic, shared custody has been legally codified since 1998, even though the previous legislation did not explicitly exclude it. Over time, several case laws have emerged that tend to presume shared custody, but this option has not been legislatively embedded. In 2016 in the Czech Republic, looking at the court decisions concerning the divorce of parents, $77 \%$ of minors stayed with their mothers after divorce, $7 \%$ stayed with their fathers, and $16 \%$ were in shared custody ${ }^{4}$ (Czech Statistical Office 2017). No reliable data about broken cohabitations is available.

Concerning the factors affecting attitudes toward shared custody, we formulate five hypotheses based on the following theoretical arguments. Shared custody disrupts the traditional gendered logic of role division, and its emergence is connected with the spread of gender role transformations through society. The increasing prevalence of shared custody is to the detriment of sole custody, which is mostly assigned to women. The same trend thus has very different connotations for men and women (Fox and Kelly 1995). The gender differences in attitudes emerge partly due to the clash of two parallel gender ideologies. On one side, there is a notion of intensive

[^36]motherhood and an (almost exclusive) connection of women with parenthood through the arguments for breastfeeding, long maternal leave, and employer expectations. On the other side, current notions of fatherhood, influenced by egalitarian gender role attitudes, increase men's parental involvement, at least at the level of expectations. We expect that (1) attitudes will be strongly divided along the gender of the respondents.

The generational point of view is also important, because in most societies the turn toward shared custody is a very recent trend that considerably alters the generational experience of union dissolution. We can expect the cohort effects because of different gender socialization and different discourses of parenthood (particularly, the post-Communist transformation period is characterized by rapid changes in the institutional nature of family, marriage, and parenthood). The effect of the life path is also very likely to be an important factor in the construction of attitudes towards shared custody; therefore, we control the age effect for the partnership/divorce experience and parental experience. Formally, in the hypothesis (2) we expect that attitudes will be divided along the age divisions of the respondents.

Studies examining the choice of post-divorce custody arrangements report the selective mechanisms among which the effect of higher status is one of the most important (Bakker and Mulder 2013). In most of the societies where empirical evidence is available, the option of shared custody is chosen by the more educated and more affluent parents (Cancian et al. 2014). Nevertheless, little is known regarding whether these differences are caused by different preferences or by the fact that shared custody requires more resources. The testing of hypothesis (3), that the higher social status of the respondents will lead to a higher acceptance of shared custody, will help to understand whether different attitudes exist, or whether the choice is driven by economic reasons or different reasons.

The last two hypotheses are formulated on the basis of sociological arguments about general gender role development and the de-stigmatization of divorce. Gender roles are developing in a more egalitarian direction, which is consistent with the abandonment of the preference for sole custody models (Juby et al. 2005; Kalmijn and De Graaf 2000). Our hypothesis (4) is that egalitarian gender-role attitudes will lead to positive attitudes toward shared custody. Based on the notion of a broader divorce culture (Hackstaff 1999), which means a wider acceptance of divorce throughout societies, the final hypothesis (5) anticipates that the positive attitudes toward shared custody will be tied to open attitudes toward divorce.

### 12.5 Methods and Data

The basis for the analysis is the assessment of statements concerning respondents' attitudes toward the phenomenon of shared custody. Unlike other sources in which divorced (or divorcing) people were asked about their choice or preference, our data stem from a survey of the broader public on the opinion of which custody option is better, according to personal subjective feelings. This difference leads to varying
interpretations of the results: we do not expect to predict the behavior of the affected population, but we are interested in determining what the results indicate about the structure of attitudes representing part of the cultural milieu of a given society.

We analyze the data from two different surveys conducted in the Czech Republic in 2016 and 2017 to compare and triangulate the results obtained by slightly different methodologies. Each survey offers a different wording of the question and different response options.

In the Czech Household Panel Survey (CHPS), ${ }^{5}$ the question about shared custody was part of a broader battery of questions focused on the divorce culture. ${ }^{6}$ We also use the other three items to indicate attitudes toward divorce. The battery was introduced by the instruction:

We know that in each particular case, one should always consider the circumstances, but let's try to discuss your general opinions on marriage and divorce. To what extent do you agree with the following statements?

The following items were evaluated by respondents on a four-point Likert scale, ${ }^{7}$ measuring the level of agreement.

Children after divorce should be in shared custody rather than with just one of their parents.

Divorce leads to a more fulfilling life.
Divorce mostly causes irreparable injuries to the children.
If there are children in the family, parents should stay together.
The second source is the Czech country dataset from the European Values Survey (EVS) project, collected in 2017. The size of the sample is 1812 respondents, ages 18-97 years. The question concerning shared custody was used only in the Czech country-specific part of the questionnaire, and dichotomous answers were offered.

> Some people say it is better for the child to stay with one of the parents after divorce; others are in favor of shared custody. Generally speaking, what is your opinion of these options?

Two answers were offered:
It seems to me that it is better if the child stays with one of the parents or Shared custody seems better to me.

We used the set of characteristics of respondent (sex, age, partner status, educational and income level, presence of children in household, religiosity, and family background) and the measures of gender role attitudes and attitudes toward divorce

[^37]as the independent and control variables. These variables are described in detail in the descriptive part of the analysis.

The analysis starts with descriptive statistics (cross-tabulation and means comparison) showing the bivariate associations between the attitudes toward shared custody and the set of independent and control variables. We then proceed with binary logistic regression models searching for factors influencing the dichotomic outcome of positive vs. negative attitudes toward the shared custody. Models are built for the whole datasets and then for both sexes separately.

### 12.6 Descriptive Results

The overall results show that the proportion of respondents who evaluate shared custody as a better option is between $39 \%$ and $48 \%$ (see Table 12.1). If the question is measured on a Likert-type four-point scale, $47.8 \%$ of the responses are in favor of shared custody and $52.2 \%$ are against it. Slightly different wording and the need to choose between two options leads to a lower level of acceptance of shared custody, which, according to the EVS 2017 survey, reaches $39.3 \%$, as opposed to $60.7 \%$ in favor of the sole custody arrangement. ${ }^{8}$

However, this picture does not reveal the heterogeneity in the data. As we expected, the most substantial difference is between men and women. In both surveys, the difference is more than 20 percentage points; still, almost one third of women accept the idea of shared custody.

The attitude toward shared custody is also affected by the age of the respondents. About half of responses from the youngest age group (18-40) show positive attitudes ( $55 \%$ in CHPS and $49 \%$ in EVS). The cross-sectional data do not make it possible to measure whether these trends are due to a life course effect or cohort effect, but based on knowledge about differences in other family attitudes, we expect that these trends are the result of the different socialization of different cohorts (cf. gender-role attitudes).

Although most studies (Poortman and van Gaalen 2017; Bauserman 2002; Fehlberg et al. 2011; Cancian et al. 2014) argue that shared custody preference goes hand in hand with higher social and economic status; this association does not seem to occur in relation to attitude. Neither educational level nor family income plays a role in the attitude toward shared custody. Both surveys show rather small differences; even controlling for the association in the subgroups defined by gender and age category, the influence of educational level and family income is not seen, with one exception: the men in the oldest age cohort, whose acceptance of shared custody rises with their educational level.

[^38]Table 12.1 Overview of descriptive statistics (counts, row percentages)

|  |  | DATA CHPS 2016 |  |  |  | DATA EVS 2017 |  |  |  | Sig. CHPS | Sig. EVS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Shared |  | Sole |  | Shared |  | Sole |  |  |  |
|  |  | N | \% | N | \% | N | \% | N | \% |  |  |
| Sex | Men | 1183 | 61.2\% | 750 | 38.8\% | 296 | 51.7\% | 276 | 48.2\% | * | * |
|  | Women | 1149 | 39.0\% | 1794 | 61.0\% | 281 | 31.3\% | 616 | 68.7\% | * | * |
| Age category | 18-40 | 731 | 55.4\% | 588 | 44.6\% | 214 | 49.1\% | 222 | 50.9\% | * | * |
|  | 41-60 | 831 | 45.3\% | 1003 | 54.7\% | 168 | 36.1\% | 298 | 63.9\% | * |  |
|  | 61+ | 770 | 44.7\% | 953 | 55.3\% | 176 | 33.7\% | 347 | 66.3\% | * | * |
| Education | Elementary | 156 | 48.0\% | 169 | 52.0\% | 53 | 35.3\% | 97 | 64.7\% |  |  |
|  | Vocational | 749 | 51.7\% | 701 | 48.3\% | 182 | 38.1\% | 296 | 61.9\% | * |  |
|  | Secondary | 865 | 45.8\% | 1024 | 54.2\% | 219 | 38.5\% | 350 | 61.5\% | * |  |
|  | Tertiary | 562 | 46.4\% | 650 | 53.6\% | 118 | 44.9\% | 145 | 55.1\% |  | * |
| Income level household | Lower | 781 | 47.4\% | 866 | 52.6\% | 155 | 38.2\% | 251 | 61.8\% |  |  |
|  | Middle | 965 | 48.2\% | 1037 | 51.8\% | 140 | 37.6\% | 232 | 62.4\% |  |  |
|  | Higher | 471 | 48.9\% | 492 | 51.1\% | 182 | 43.0\% | 241 | 57.0\% |  |  |
| Partnership experience | Married/widowed | 1521 | 47.2\% | 1699 | 52.8\% | 318 | 37.4\% | 533 | 62.6\% |  |  |
|  | Divorced | 321 | 40.2\% | 478 | 59.8\% | 95 | 33.2\% | 191 | 66.8\% | * | * |
|  | Never married | 490 | 57.2\% | 367 | 42.8\% | 151 | 48.4\% | 161 | 51.6\% | * | * |
| Children under 18 in household | No | 1649 | 47.8\% | 1798 | 52.2\% | 369 | 39.6\% | 562 | 60.4\% |  |  |
|  | Yes | 683 | 47.8\% | 746 | 52.2\% | 202 | 38.5\% | 323 | 61.5\% |  |  |
| Religiosity | Religious | 1513 | 48.1\% | 1632 | 51.9\% | 203 | 40.7\% | 296 | 59.3\% |  |  |
|  | Non-religious | 814 | 47.6\% | 895 | 52.4\% | 337 | 38.6\% | 535 | 61.4\% |  |  |
| Family background | Both parents | 1943 | 48.0\% | 2107 | 52.0\% | 477 | 39.0\% | 747 | 61.0\% |  |  |
|  | One parent or none | 387 | 47.1\% | 435 | 52.9\% | 95 | 41.5\% | 134 | 58.5\% |  |  |

Note: Significant differences flagged on the base of adjusted standardized residuals

Table 12.2 Mean values of the indicators of gender-role attitudes and divorce attitudes

|  |  | $\begin{aligned} & \text { DATA CHPS } \\ & 2016 \end{aligned}$ |  | $\begin{aligned} & \text { DATA EVS } \\ & 2017 \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Shared | Sole | Shared | Sole |
| Gender-role attitudes** | Man's job is to earn money; woman's job is to look after home and family (CHPS, EVS) | 3.10* | 3.24* | 2.55* | $2.45 *$ |
|  | A pre-school child is likely to suffer if his or her mother work (CHPS, EVS) | 3.02* | 3.22* | 2.78 | 2.71 |
|  | Both should contribute to the household income (CHPS) (reversed) | 4.70 | 4.70 | - | - |
|  | Family life suffers when woman has fulltime job (EVS) | - | - | 2.64 | 2.59 |
|  | A job is all right, but what most women really want is a home and children (EVS) | - | - | 2.10 | 2.11 |
| Gender index (CHPS: 3 items, 5-point scale; EVS: 4 items, 4-point scale) |  | 3,61* | 3.72* | 2.52 | 2.47 |
| General divorce attitudes | Divorce leads to a more fulfilling life (CHPS)*** | 2.81* | 2.88* | - | - |
|  | Divorce mostly causes irreparable injuries to the children (CHPS)*** | 1.73* | 1.93* | - | - |
|  | If there are children in the family, parents should stay together (CHPS) ${ }^{* * * *}$ | 3.63* | 3.95* | - | - |

*Significance test Mann-Whittney sig. $<0,05$
${ }^{* *}$ Measured on 5-point scales in CHPS and 4-point scales on EVS; $1=$ strongly agree and $4 / 5=$ strongly disagree
${ }^{* * *}$ Measured on 4-point scales in CHPS; $1=$ strongly agree and $4=$ strongly disagree
${ }^{* * * *}$ Measured on 5 -point scale in CHPS; $1=$ strongly agree and $5=$ strongly disagree
The influence of partnership experience could be partially attributed to respondent age (in both surveys, people who have never married have the most positive attitudes), but the difference between married and divorced people is interesting: people who have experienced divorce have slightly more reserved attitudes to shared custody.

No other family or respondent characteristic influences the level of acceptance of shared custody in Czech society: the responses are almost the same among those who live with children in the household and those who do not; there is no effect of religion, and even the experience of a single-parent family in childhood does not affect opinions about shared custody.

Inspired by the literature on the factors affecting the choice of shared custody, we focus on two sets of attitudes that could influence the acceptance of shared custody. We assume the approach to shared custody is a part of a broader set of attitudes concerning at least two important dimensions: the dimension of gender-role attitudes and the attitudes connected to the phenomenon of divorce itself. For the first dimension, we use items measuring gender-role attitudes associated in an additive index (gender-index) (see Table 12.2). ${ }^{9}$

[^39]To indicate the second dimension, we decided to use three indicators of "divorce culture": the belief that divorce leads to a more fulfilling life; the opinion that divorce causes irreparable injuries to the children; and the notion that if there are children in the family, parents should stay together. The intercorrelations of these items are too small to merge them into an additive index; hence, we use them separately.

### 12.7 Exploring Factors Affecting Attitudes Toward Shared Custody

To estimate the effects of the given factors, we used a model of binary logistic regression with the option of sole custody (0) or shared custody (1) as the dependent variable. ${ }^{10}$ As a set of independent variables, we used the above-mentioned indicators of individual and status characteristics (sex, age, education level, and household income of respondent). We also used control variables, mostly to control for the account of individual life path and family background (presence of children in household, family type, and family background). The last set of independent variables is the measure of gender-role attitudes and indicators of the attitudes toward divorce itself.

We estimated the models in three stages: (1) to compare the results of exactly the same model between two datasets (model A), then (2) to use the full potential of explanatory variables available on each dataset (gender roles and divorce attitudes present in model $B$ ), and (3) to split between the subsets of men and women to determine whether the influence of given variables differed inside groups defined by sex (model C). ${ }^{11}$

The overall image is very similar to the results of descriptive statistics, and different models constructed on different datasets provide similar results ${ }^{12}$ (see Table 12.3). The most important factors in the model are the respondent's sex and age. The sex of the respondent accounted for most of the explanatory power of the

[^40]Table 12.3 Binary logistic regression parameters (log odds of positive attitude toward shared custody over sole custody)
Model C CHPS Model C CHPS

| Model A CHPS |  | Model A EVS |  | Model B CHPS |  | Model B EVS |  | Model C CHPS <br> Men |  | Model C CHPS <br> Women |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |
| B | sig. | B | sig. | B | sig. | B | sig. | B | sig. | B | sig. |
| 0.894 | 0.000 | 0.886 | 0.000 | 0.790 | 0.000 | 0.840 | 0.000 | - | - | - | - |
| 0.017 | 0.000 | -0.019 | 0.000 | -0.020 | 0.000 | -0.019 | 0.000 | -0.018 | 0.000 | -0.021 | 0.000 |
| 0.167 | 0.221 | -0.365 | 0.179 | 0.093 | 0.549 | -0.294 | 0.298 | -0.152 | 0.623 | 0.139 | 0.444 |
| 0.212 | 0.014 | -0.326 | 0.099 | 0.196 | 0.041 | -0.352 | 0.093 | 0.196 | 0.187 | 0.187 | 0.141 |
| 0.015 | 0.854 | -0.202 | 0.270 | 0.035 | 0.690 | -0.236 | 0.215 | 0.128 | 0.358 | -0.048 | 0.67 |
| - | 0.030 | - | 0.363 | - | 0.158 | - | 0.406 | - | 0.442 | - | 0.158 |
| 0.171 | 0.078 | 0.327 | 0.075 | 0.168 | 0.114 | 0.330 | 0.087 | 0.214 | 0.212 | 0.146 | 0.284 |
| 0.022 | 0.795 | 0.004 | 0.979 | 0.046 | 0.615 | 0.063 | 0.715 | 0.103 | 0.470 | 0.018 | 0.882 |
| - | 0.105 | - | 0.114 | - | 0.222 | - | 0.185 | - | 0.456 | - | 0.421 |
| -0.034 | 0.745 | 0.263 | 0.286 | -0.061 | 0.596 | 0.393 | 0.132 | -0.172 | 0.351 | 0.001 | 0.996 |
| -0.343 | 0.003 | 0.121 | 0.649 | -0.295 | 0.020 | 0.233 | 0.407 | -0.081 | 0.707 | -0.371 | 0.021 |
| - | 0.001 | - | 0.484 | - | 0.023 | - | 0.279 | - | 0.617 | - | 0.005 |
| 0.197 | 0.018 | 0.242 | 0.310 | 0.233 | 0.011 | 0.292 | 0.248 | 0.016 | 0.916 | 0.341 | 0.004 |
| -0.131 | 0.047 | 0.193 | 0.158 | -0.051 | 0.480 | 0.227 | 0.111 | 0.019 | 0.869 | -0.089 | 0.336 |
| 0.087 | 0.290 | -0.074 | 0.674 | 0.093 | 0.296 | -0.096 | 0.601 | 0.193 | 0.185 | 0.033 | 0.772 |
| - | - | - | - | -0.008 | 0.871 | 0.127 | 0.243 | -0.070 | 0.345 | 0.030 | 0.619 |


| Divorce attitudes ${ }^{\text {a }}$ | Divorce leads to a more fulfilling life | - | - | - | - | -0.119 | 0.003 | - | - | -0.162 | 0.015 | -0.094 | 0.065 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Divorce mostly causes irreparable injuries to the children | - | - | - | - | -0.227 | 0.000 | - | - | -0.173 | 0.014 | -0.251 | 0.000 |
|  | If there are children in the family, parents should stay together | - | - | - | - | -0.157 | 0.000 | - | - | -0.181 | 0.000 | -0.141 | 0.001 |
| Model constant |  | 0.236 | 0.129 | 0.028 | 0.934 | 1.730 | 0.000 | -0.401 | 0.387 | 2.795 | 0.000 | 1.571 | 0. 000 |
| Model R-squared (Nagelkerque) |  | 0.081 |  | $0.093$ |  | $0.104$ |  | 0.089 |  | 0.052 |  | 0.053 |  |

model, ${ }^{13}$ but also served as the control for the effect of other variables. Indicators of social status do not influence the acceptance of shared custody. Only the vocational level of education raises the acceptance of shared custody according to the CHPS survey, which means the effect of educational level is non-linear and contradictory to our hypothetical assumptions. Personal divorce experience as well as the presence of children in the household diminish the level of acceptance of shared custody. If the model for both sexes is split (see model C), the effect of life path is weaker for men and stronger for women. Particularly, women without children and without having experienced a divorce are more likely to hold positive attitude toward shared custody.

The lack of effect of gender-role attitudes is a bit surprising. Small and nonsignificant parameters for the gender index in both surveys show that the acceptance of shared custody is not connected to specific (particularly egalitarian) gender-role attitudes (see model B). The set of variables measuring the attitudes toward divorce and gender-role balance in the household is available only in the CHPS; therefore, from this point we will use only the CHPS dataset. A regression model shows a positive association with divorce attitudes, indicating that more positive attitudes toward shared custody are usually held by people who think that (1) divorce can lead to a more fulfilling life, (2) divorce causes mostly irreparable injuries to children, and (3) partners should stay together when there are children. The first statement sounds liberal, while the other two have traditional connotations - this seems to be in contradiction. A possible explanation could be that the first statement is oriented to the divorcees themselves, but the other two concern the impact on children.

### 12.8 Discussion

Within the research on post-divorce custody arrangements, very little is known about the general public attitudes, particularly attitudes toward the topic of shared custody. We consider this factor to be important especially in societies in which the institution of shared custody is in its beginning stages and the public discussion is still rather polarized, ambiguous, or confused. In the Czech society, with its high divorce rate, we found relatively open public attitudes toward shared custody, particularly among younger age groups and men, to be in sharp contrast with its low incidence in court decisions. In an effort to find the factors that shape individual attitudes, we tested five hypotheses, expecting effects of (1) sex and (2) age, (3) social status, (4) gender-role attitudes, and (5) divorce attitudes. We found support for the first two and last hypotheses, and no support for the third and fourth. It is not surprising that men and women differ in their attitudes; the ratio is about 60/40 accepting shared custody. The gender division of the attitudes is the strongest pattern in the data. The numbers accepting shared custody are higher in the younger

[^41]age group and much lower in the older. These results are in line with the theoretical explanations based on the generational experience and feelings of novelty of shared custody model.

Although many studies show that higher-status families are more likely to choose shared custody arrangements, the situation seems to be different in expressed attitudes. Our results do not show any important effect of educational level, nor of family income. Therefore, we reject the third hypothesis. This should be further examined, particularly in groups with actual divorce experience, because the discrepancy between attitudes and choices could indicate structural barriers, rather than negative preferences causing different choices.

The effect of gender-role attitudes is also missing from the data, leading us to reject our third hypothesis. There are strong theoretical arguments for the existence of a link between the gender order of society and the emergence of shared custody (Wahlstrom 2010; Doucet and Lee 2014), but the nature of this association on the individual level may differ. The measurement of gender-role attitudes can be too focused on the work/family division and may not reflect other spheres of gender equality.

Testing the fifth hypothesis provides results suggesting that the acceptance of shared custody is connected to conservative views on divorce rather than to liberal ones. People's skepticism about the impact of divorce on children is probably what drives their attitudes toward shared custody, rather than egalitarian gender-role attitudes.

### 12.9 Conclusion

We obtained a general image that shows, despite a rather negative connotation of shared custody in the media and its relatively rare occurrence in child custody judgments, that this form of arrangement is not rejected by the Czech public. There is still, without doubt, a gender and generational imbalance, since the expansion of shared custody is at the expense of recent practices that tended to favor maternal custody.

Public attitudes toward shared custody are rarely studied; nevertheless, they constitute an important part of the post-divorce adaptation process. It is not only the preferences of the divorcees, but the overall social milieu that affect the extent to which the various forms of post-divorce parenting are stigmatized. It is a matter of the attitudes of relatives, friends, neighbors, professionals in custody, teachers, schoolmates, parents of schoolmates, etc. The dynamics of the attitudes are a key topic for future research. Our results show a negative age gradient of acceptance of shared custody, but the cross-sectional study design does not allow us to interpret whether this is a result of a changing generational experience or the effect of life paths and the attitudes will change with the experience of marriage or parenthood. Comparing more points in time will help to strengthen arguments for one or another explanation.

The study of attitudes toward post-divorce custody can also reveal the extent of potential tension in the fragility and irreversibility of de-institutionalizing the commitments of marriage and parenthood. On the one hand, partnerships are increasingly fragile and the stigma of dissolution is weakening. On the other hand, the intergenerational ties represented by the rights and obligations of both parents to share custody are becoming a higher priority. Shared custody reflects a search for a compromise between these two contradictory trends of partnership individualization and parenthood commitment, trends which are deeply rooted in the development of post-modern societies. The most important message in this respect is that even in a society where the change of legal practice is rather slow, the acceptance of such a compromise reaches higher proportions than its actual prevalence in court decisions.

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# Chapter 13 <br> Feelings of Guilt in the Family: The Case of Divorced Parents 

Matthijs Kalmijn


#### Abstract

Guilt is believed to be a common emotion in personal relationships. Few studies, however, have examined if guilt plays a role in the divorce process. The present chapter uses unique nationally representative survey data which included questions on the extent to which parents have feelings of guilt toward their (young or adult) children ( $\mathrm{N}=3,203$ ). By comparing married and divorced parents while controlling for an elaborate set of control variables, we describe the effect of divorce on guilt. By testing a series of variables that may moderate the divorce effect, we subsequently try to explain why divorce affects guilt. Our findings show that there are significant effects of divorce on the feelings of guilt that parents have toward their children. These effects are stronger when parents have more traditional attitudes toward family issues, in line with moral explanations of guilt. The effects are also stronger when the relationship between the child and parent is stronger, in line with explanations of guilt in terms of altruism.


Keywords Divorce • Well-being • Children • Intergenerational relations • Guilt

### 13.1 Introduction

Guilt can be defined as the negative feelings that arise from having done something that is or is perceived to be wrong (Baumeister et al. 1994). Guilt has been considered as one of the primary moral emotions that people have (Tangney et al. 2007) and is seen as an unpleasant feeling that may reduce individual well-being (Kim et al. 2011; O'Connor et al. 1999; Webb et al. 2007). Guilt is not the same as shame; guilt is the awareness that one has done something wrong, shame is the translation of that feeling to one's self-image, i.e., the feeling of not being a good person (Tangney et al. 2007). While guilt applies to a large variety of situations, it has been argued that it occurs especially often in close relationships. People may feel guilty

[^42]if they have done - or think they have done - harm to a friend, partner, child, parent, or other relative (Baumeister et al. 1994). Guilt is thus not only a moral but also fundamentally a relational phenomenon.

Given these arguments, the concept of guilt should figure prominently in research on family relationships. Few studies on marriage and family, however, have systematically measured guilt (Baumeister et al. 1994). There is some research on the division of domestic and household labor in couple relationships which shows that partners who contribute less than their 'fair' share sometimes experience feelings of guilt (Guerrero et al. 2009). There is also research on the guilt problem that some working mothers experience when combining a demanding professional job with the raising of their children (Guendouzi 2006; Henderson et al. 2016). Some studies have examined the guilt that adult children feel toward their ageing and ill parents (Boll and Filipp 2002; Losada et al. 2018). A recent study showed that adult children's feelings of guilt toward their mother are associated with feelings of ambivalence, with imbalances in support exchange, and with norms of filial responsibility (Kalmijn 2018).

One important case where guilt can arise lies in the divorce process. When only one of the partners takes the initiative for a divorce, there is the obvious feeling of guilt toward the partner (Gray and Cohen Siver 1990; Wallerstein and Kelly 1996). Next to feelings of guilt toward the partner, parents who divorce may feel guilty toward their children. Many studies have shown that there are negative effects of parental divorce on the emotional well-being of children (Amato and Anthony 2014; Fomby and Cherlin 2007). Given the increasing media attention to the problems surrounding divorce, it is plausible that parents are generally aware of such effects. Although it is difficult to assess in an individual case whether one's child suffers as a result of the divorce, if the child has problems after divorce, parents may still feel some responsibility for these problems. Of course, married parents may also have children with difficulties and studies suggest that parents are confronted with guilt problems in such cases as well (Godwin 2004). In the case of parents who divorce, however, children's problems will on average be larger and it is plausible that parents attribute these to some extent to their own decision to divorce. As a result, one would expect that divorced parents experience more feelings of guilt toward their children than married parents.

There is very little research that has tested this hypothesis. One exception is a recent qualitative study from Finland which has documented that feelings of guilt toward children are common among divorced parents and more common than feelings of guilt toward the spouse (Kiiski et al. 2013). This study did not make comparisons to married parents, who also may have feelings of guilt toward their children, and did not examine moderators or consequences of guilt. One reason for the scarcity of research on divorce and guilt is that most large-scale surveys which have been used in quantitative research on divorce do not measure guilt.

There are a number of reasons why a study of the link between divorce and guilt is important. First, it is not only important to know if divorce affects guilt, the question is also to what extent and for which parents this is a problem. Representative data are needed to assess the effect size for the association between divorce and guilt
and quantitative multivariate analyses are needed to study moderating factors. Second, studies on the consequences of divorce for parents tend to focus on more general or more health-related outcomes like life satisfaction and depression (Amato 2000; Leopold and Kalmijn 2016; Williams and Dunne-Bryant 2006). Guilt is perhaps a less 'severe' outcome but it is plausible that guilt feelings play a salient role in people's lives. Third, the case of divorce is an interesting application for the study of guilt because it provides opportunities for testing more general ideas about how guilt develops. As will be discussed below, there are several theories about guilt (Tangney et al. 2007) and these can be tested in part by analyzing the divorce process.

In the present paper, we use a new and large nationally representative survey from the Netherlands in which a module was developed that contained a series of evaluative questions about the parent-child relationship as well as an explicit question on guilt. Guilt was assessed for the feelings respondents have towards the oldest child to make the question more concrete and to allow for including children's characteristics and characteristics of the relationship in the analysis. Because we use a general population survey, the parents and children can be of all ages and the divorce can be recent or not. The role of the age of the child will be studied extensively but the descriptive goal of the paper is to present an estimate of guilt feelings for the average divorced parent vis-à-vis the average married parent. The explanatory goals of the paper will be discussed in the theory section below and will be tested using a series of interaction effects. Note that because we do not have data before and after the divorce, we cannot infer causal effects from our design. We do develop a number of empirical strategies, however, to get more grip on the causal nature of the effects.

### 13.2 Theory and Hypotheses

Our first hypothesis is that parents experience more feelings of guilt toward their children when they are divorced than when they are married (H1). ${ }^{1}$ We argue that there are two mechanisms behind this effect: one based on empathy and one based on morality.

The first mechanism is based on altruism and empathy. According to Tangney, "true interpersonal guilt hinges on an empathic awareness of and response to someone's distress and an awareness of being the cause of that distress. From this perspective, empathy is an essential prerequisite for guilt, at least in earlier developmental stages." (Tangney 1991, p. 600). Evidence from experiments and student samples clearly supports the link between empathy and guilt although the causal direction may go both ways (Joireman 2004; Leith and Baumeister 1998; Tangney 1991). In the case of divorce, the distress consists of the decline in the emotional well-being of the child. It will be clear that not all children are affected

[^43]by a divorce - there is in fact much heterogeneity in this respect - but on average children of divorced parents have more emotional problems than children of married parents (Amato and Anthony 2014; Fomby and Cherlin 2007). For this to translate into parental guilt, several assumptions are needed. Parents need to attribute the emotional problems that their children experience to the divorce and they need to feel some degree of responsibility for the decision to separate. Research suggests that it is often one of the two partners - and more often the wife - who decides to separate (Kalmijn and Poortman 2006; Sayer et al. 2011). Although this would suggest that mothers feel guiltier than fathers, taking initiative does not per se coincide with being responsible for the problems in a marriage. While we recognize that real or perceived guilt may not be distributed equally within couples, we argue that on average, divorced parents will be more often plagued by feelings of guilt toward their children than married parents.

A second mechanism behind the development of guilt lies in morality. An important theoretical argument in the literature is that guilt is a moral emotion, i.e., a feeling that arises from having broken a moral rule or a social norm (Tangney et al. 2007). The decision to divorce is governed by moral opinions and often disapproved of (Gelissen 2003). Although acceptance of divorce has increased, currently only $60 \%$ of the Dutch population (the population of this study) approves of divorce when parents have children under 12 (Kalmijn and Scherpenzeel 2009). As a result, people who divorce may feel guilty toward their children because they broke this rule. Divorcees may also feel that they were unable to fulfill the role of a 'good parent,' and hence, feel guilty, regardless of what the consequences were for their children.

A direct test of the two mechanisms discussed above is not possible. In a more indirect way, however, there are possibilities to test the relevance of each mechanism. The notion of altruism and empathy can be tested by considering differences in the quality of the relationship with the child. Because there is variation in the strength of the tie that parents have with their children, there will be variation in the degree to which parents are concerned about the harm they may have done to their child. One would thus expect that the effect of divorce on guilt is stronger when the quality of the relationship with the child is stronger (H2). The stronger the tie to the child, the more weight parents will attach to their possible suffering and the guiltier they will feel. Of course, direct measures of the child's well-being would allow for a more direct test of the notion of altruism but this is not possible with the current data.

The second mechanism - the role of norms - can be tested by looking at moderator variables as well. Although the overall public opinion surrounding divorce has become increasingly tolerant over time (Halman \& van Ingen 2015), there still is much variance in such attitudes. Some parents strongly adhere to the symbolic meaning of marriage and disapprove of divorce, whereas other parents may take a more lenient approach and regard divorce as a matter of personal choice. This variation makes it possible to test whether moral mechanisms are involved in the development of guilt. Parents who divorce while being lenient about divorce may not experience moral guilt. In other words, one would expect that the effect of divorce
on parent's guilt is weaker when parent's own norms about marriage and divorce are more liberal (H3a).

A related but slightly different way to test the moral perspective lies in religiosity. Religiosity is correlated with traditional values about marriage and divorce (Halman and van Ingen 2015) but there is an important conceptual difference between attitudes and religiosity. The former concept addresses the personal norms of a respondent whereas the latter concept also reflects the normative context in which a respondent is embedded. A divorce could be met with disapproval in the church to which one belongs (Kalmijn and van Groenou 2005), which could lead to guilt even when people themselves have liberal personal views on divorce. Hence, we expect that the more often a respondent attends church, the stronger the effects of divorce on guilt (H3b).

Next to testing these theoretically derived hypotheses, we look at the role of repartnering. Some repartnered or remarried parents may feel that they 'deserted' their previous family. This would be particularly relevant for divorced fathers since it has been argued that some divorced fathers 'swap families', especially when it is difficult for them to remain attached to their previous children (Manning and Smock 2000). While this would imply greater feelings of guilt among repartnered parents, it is also known that repartnering improves a person's well-being (Dewilde and Uunk 2008) and this could reduce feelings of guilt. We also look at the current age of the child, which reflects both the time that has elapsed since the divorce and the age at which the divorce took place. When children are older, the divorce either was a long time ago and hence, less influential (Amato and Keith 1991), or it happened at an older age when it is also less detrimental for child well-being (Aquilino 1994). Hence, the difference between married and divorced parents in their feelings of guilt will probably be larger when the child is young.

### 13.3 Method

The data were collected as part of a module on family relationships in the LISS panel in the Netherlands (Longitudinal Internet Studies for the Social sciences). The LISS was based on a nationally representative register sample of Dutch households and is a panel study where respondents are asked to fill in questionnaire modules repeatedly (starting in 2007). Respondents are paid to answer questions and have to fill out questions via internet (Computer Assisted Web Interviewing). Respondents without internet or computers were given a PC and free internet access enabling them to participate. The survey was made possible through a grant from the Dutch government. Extensive measures were taken to maximize response for this timeintensive panel study. The result was an initial response rate of $48 \%$ at the household level (Scherpenzeel 2009; Scherpenzeel and Toepoel 2012).

Questions about guilt were included in the family module in 2015, 2016, and 2017. We use all three years and analyze a person-year file using random-effects regression models that accommodate for the clustering of observations within
persons. We also have yearly measures for all the independent variables. We do not expect clear trends or changes in this short period of time but use all years as repeated observations to increase the reliability of the analysis (Petersen 2004). Averaging would be another option - implying a between-effects regression model but this underutilizes the information that is available (Petersen 2004).

Questions were asked about the relationship with the oldest child and the marital status groups were defined accordingly. From the participants in the family module ( $\mathrm{N}=6098$ ), we selected three groups of respondents: (a) divorced/separated single respondents whose oldest child is a biological child ('single divorced'), (b) married/ cohabiting respondents whose oldest child is the biological child of a previous partner and who were not previously widowed ('repartnered'), ${ }^{2}$ and (c) married/cohabiting respondents who were not previously divorced/separated or widowed and whose oldest child is the biological child of the current partner ('married'). The sample is limited to parents between the ages 18-65. The parents were on average 44 years of age and the children about which they reported were on average 21 . The number of unique respondents observed in any of the three waves was 3203 and of these, 641 unique parents were divorced/separated (either single or repartnered).

### 13.3.1 Measures

Respondents were given a series of statements about the relationship they had with the oldest child (e.g., "I am very fond of my child"). The item on guilt was part of this battery and worded as follows: "I often feel guilty toward my child". Respondents could answer on a scale from 1 ("not applicable to me at all") to 7 ("fully applicable to me"). It should be noted that prior (often clinical) studies typically use more items to measure guilt, sometimes 50 or more (Tilghman-Osborne et al. 2010). Including such a scale was not possible in the LISS panel and would also have been impractical for measuring guilt in one concrete relationship. To the defense of the measure, it can be said that it is correlated in predicted ways with important outcome variables like depression. The correlation between our guilt measure and the short MHI-scale for depressive feelings is $r=.27$ (Rumpf et al. 2001). We also use a measure of feelings of guilt toward the parent's mother, which was measured in the same way as it was for the oldest child. We explain below how we include this aspect of guilt in the analyses.

To measure the quality of the parent-child tie, we use the seven questions that addressed positive or negative sentiments about the child (e.g., "I am very fond of my child", "I am often angry at my child"). The negative items were reversed and the items were combined into a single scale which has a very good reliability ( $\alpha=$ .80 ). This scale and all subsequent scales are constructed by taking the mean across valid items and subsequently standardizing the result $(\mathrm{m}=0$, s.d. $=1)$. Details of all items can be found in Table 13.1. The age of the child is included as a linear variable

[^44]Table 13.1 Descriptive statistics of sample

|  | Mean | sd | Min | Max | Count |
| :--- | ---: | :--- | :---: | :---: | :---: |
| Separated/single | 0.07 |  | 0.00 | 1.00 | 7,062 |
| Separated/repartnered | 0.12 |  | 0.00 | 1.00 | 7,062 |
| Mother vs father | 0.57 |  | 0.00 | 1.00 | 7,062 |
| Age parent | 49.51 | 10.30 | 21.00 | 65.00 | 7,062 |
| Age of child |  |  |  |  | 7,062 |
| Age of child (centered) | -0.26 | 11.63 | -20.75 | 28.25 | 7,062 |
| Liberal family values | -0.02 | 1.00 | -4.26 | 1.97 | 5,902 |
| Church attendance | 0.04 | 1.03 | -0.65 | 2.71 | 6,631 |
| Poverty index | -0.06 | 0.92 | -0.47 | 6.06 | 5,699 |
| Working hours | 22.81 | 18.46 | 0 | 80 | 6,234 |
| Agreeableness (z) | 0.04 | 0.99 | -4.63 | 2.29 | 6,393 |
| Extraversion (z) | -0.01 | 1.00 | -3.47 | 2.72 | 6,393 |
| Conscientiousness (z) | 0.16 | 0.94 | -4.10 | 2.55 | 6,393 |
| Drug use | 0.04 |  | 0.00 | 1.00 | 5,975 |
| Daily alcohol | 0.18 |  | 0.00 | 1.00 | 5,975 |
| Smoker | 0.16 |  | 0.00 | 1.00 | 5,975 |
| Quality relation child (z) | 0.05 | 0.96 | -4.84 | 1.02 | 7,062 |

Source: LISS Family Module 2015, 2016, 2017. Most missing values result from the fact that different variables were obtained from different monthly modules that each have nonresponse
and refers to the current age of the child. To measure traditional versus liberal values, two measures were used. First, we use six attitude statements about marriage and divorce (e.g., "It is perfectly fine for a couple to live together without being married"). These attitudes measure the degree to which a respondent adheres to traditional norms about marriage. The six items were combined into a scale ( $\alpha=$ .71) where higher scores indicate more liberal values. Second, we use a measure of the approximate number of church visits, scaled from 0 for never to 52 for weekly (in logged form; 1 was added to make the conversion possible). Religiosity is correlated with liberal values about marriage and divorce ( $\mathrm{r}=-.48$ ) so we will provide additional tests where religion and attitudes are included separately.

In the absence of longitudinal data, it is especially important to control for possible confounding variables. For this reason, we use a large set of control variables. First, we include three measures of personality. Previous studies have suggested a link between personality and guilt (Fayard et al. 2012) and between personality and divorce (Claxton et al. 2012; Masarik et al. 2013). The LISS data contain the full International Personality Item Pool that was originally developed by Goldberg (Lamers et al. 2012). From this series of items, we constructed three scales: agreeableness $(\alpha=.82)$, extraversion $(\alpha=.88)$, and conscientiousness $(\alpha=.78)$. These items were measured in 2012, 2013, and 2014 and are combined into one static measure to improve the reliability. The reason to make the measure static is that personality is usually believed to be a stable trait. The alpha's were virtually identical in each year (the values above refer to 2012).

Second, we use measures of health behaviors that reflect things about which a parent may feel guilty and which are known to be associated with divorce (Mortelmans et al. 2011; Waite and Gallagher 2000). Specifically, we include three variables: if the parent smokes, if the parents consume alcohol on a daily basis, and if the parent uses soft- and/or hard drugs. There are not many parents who report drug use (Table 13.1) but enough for testing an effect. Finally, we considered a number of more demographic and socioeconomic characteristics. Of these, we found that poverty is the most relevant in that it correlates with marital status while it also affects guilt. We include an index of five items that measure poverty (e.g., "not being able to pay the rent", "not being able to replace broken appliances"). We also include the number of hours worked and an interaction of hours worked and gender.

Even with a good set of control variables, it is possible that an association between divorce and guilt is not causal in nature. Psychological theories often make the distinction between guilt proneness and guilt experience (Cohen et al. 2012; Fayard et al. 2012). Guilt proneness points to interpersonal differences in feelings of guilt for the same trigger event or situation. Our aim is to assess how divorce affects guilt and we would ideally like to control for divorce proneness if persons who are at risk of divorce would be more guilt prone. To assess this, we use questions on general feelings of guilt and general feelings of shame. The questions were obtained from a more elaborate scale to measure positive and negative affect (Watson et al. 1988). Although not intended to measure guilt or shame specifically, we think these measures provide an interesting way to address the issue of guilt proneness. The items were measured on a 7-point scale and were repeated in 2012, 2013, 2014 and 2017. We average the items across available waves. We regress parents' feelings of guilt on these general measures of guilt and shame and we obtain the residual score to measure the guilt that is specifically targeted toward the child. We replicate our models using this alternative (residualized) guilt measure as an indirect way to control for guilt proneness.

Finally, we examine feelings of guilt toward the mother as one additional outcome to check whether the effect of divorce on guilt is specifically targeted toward the child or a more general feeling of guilt toward family members. Our theories are about the emotional well-being of the child and about the norm of being a good parent, so we would expect the effects on guilt to be present mostly for children and not for feelings of guilt toward one's own parents. This question was asked in the same family module that included the questions about guilt toward children.

Missing values of control variables were imputed using the multiple imputation module in Stata. The dependent variables as well as the divorce variables were used in the procedure but not themselves imputed.

### 13.4 Results

We start by describing the extent to which parents have feelings of guilt toward their children, regardless of marital status, and how this differs between fathers and mothers. In Figure 13.1, we show how fathers and mothers responded to the question on guilt. The scale ranges from 1 to 7 , where 4 is the neutral score.

We see that a small minority of parents - $15 \%$ of fathers and $17 \%$ of mothers report feelings of guilt toward their oldest child (scores of 5, 6, or 7). Although this number is not high, the main message here is that such feelings are present and not limited to a very small and potentially select group of parents. There is also variation on the positive end of the scale and there is group of people who say they are neutral (about $10 \%$ ). To analyze this variable, we use both a linear version where the scale is standardized and a binary version where we contrast the positive scores $(\geq 5)$ to the other scores $(\leq 4)$. The binary approach is the strictest in that it ignores variation on the neutral/left-side of the continuum.

In Table 13.2, we present the random effects regression models where the standardized guilt score is the dependent variable. We include two binary variables for divorced and repartnered parents and use married/cohabiting parents as the reference category. The binary variables for divorce and repartnering both have significant effects on guilt. Single divorced and repartnered parents both have more feelings of guilt than married parents. The effect sizes are moderate: Cohen's d is 0.33 for single divorced parents and 0.39 for repartnered parents. The logit models confirm the findings (Table 13.3). Divorced parents have 2.2 times higher odds (exp (.786)) of reporting guilt feelings than married parents; for repartnered parents, the odds ratio is 2.6 .


Fig. 13.1 Feelings of guilt toward children

Table 13.2 Random effects regression of feelings of guilt of parents toward their oldest biological child

|  | Model 1 | Model 2 | Model 3 | Model 4 |
| :---: | :---: | :---: | :---: | :---: |
| Agreeableness (z) | -. 003 | -. 003 | .042* | -. 003 |
|  | (.019) | (.019) | (.018) | (.019) |
| Extraversion (z) | -.069* | -.068* | -.051* | -.067* |
|  | (.017) | (.017) | (.016) | (.017) |
| Conscientiousness (z) | -.128* | -.127* | -.087* | -.128* |
|  | (.018) | (.018) | (.016) | (.018) |
| Poverty index | . 055 * | .055* | .043* | .054* |
|  | (.015) | (.015) | (.014) | (.015) |
| Working hours (z) | . 003 | . 005 | . 015 | . 005 |
|  | (.019) | (.019) | (.018) | (.019) |
| Hours x mother | .052* | .051* | .053* | .053* |
|  | (.029) | (.029) | (.027) | (.029) |
| Drug use | .237* | .234* | .252* | . $232 *$ |
|  | (.074) | (.074) | (.069) | (.074) |
| Daily alcohol | . 058 | . 058 | . 043 | . 058 |
|  | (.040) | (.040) | (.037) | (.040) |
| Smoker | . 005 | . 004 | -. 002 | . 009 |
|  | (.042) | (.042) | (.039) | (.042) |
| Mother vs father | .146* | .154* | .149* | .153* |
|  | (.035) | (.038) | (.032) | (.035) |
| Age of child | -.017* | -.017* | -.018* | -.017* |
|  | (.001) | (.001) | (.001) | (.001) |
| Quality relation child |  |  | -.380* |  |
|  |  |  | (.014) |  |
| Church attendance |  |  |  | . 000 |
|  |  |  |  | (.016) |
| Liberal family values |  |  |  | . 002 |
|  |  |  |  | (.017) |
| Separated/single vs married | . $334 *$ | . $434 *$ | .262* | . 357 * |
|  | (.056) | (.092) | (.052) | (.056) |
| x mother |  | -. 159 |  |  |
|  |  | (.111) |  |  |
| x age child |  | . 000 |  |  |
|  |  | (.005) |  |  |
| x quality relation child |  |  | .096* |  |
|  |  |  | (.038) |  |
| x church attendance |  |  |  | -. 043 |
|  |  |  |  | (.056) |
| x liberal family values |  |  |  | -.197* |
|  |  |  |  | (.057) |
| Separated/repartnered vs married | . $393 *$ | . 369 * | . $335 *$ | . 402 * |

Table 13.2 (continued)

|  | Model 1 | Model 2 | Model 3 | Model 4 |
| :--- | :--- | :--- | :--- | :--- |
|  | $(.045)$ | $(.069)$ | $(.042)$ | $(.048)$ |
| x mother |  | .036 |  |  |
|  |  | $(.089)$ |  |  |
| x age child |  | .001 |  |  |
| x quality relation child | $(.004)$ |  |  |  |
|  |  |  | $.169 *$ |  |
| x church attendance |  |  | $(.033)$ |  |
|  |  |  |  | $(.030$ |
| x liberal family values | $-.146 *$ | $-.151 *$ | $-.117 *$ | $-.150 *$ |
| Constant | $(.028)$ | $(.030)$ | $(.026)$ | $(.029)$ |
|  | 3203 | 3203 | 3203 | 3203 |
| N persons | 7062 | 7062 | 7062 | 7062 |
| N person-waves |  |  | -.020 |  |

Source: LISS Family Module 2015, 2016, 2017
Standard errors in parentheses. Multiple imputations. ${ }^{\sim} p<0.10,{ }^{*} p<0.05$

In Model 2, we test whether the effects differ between fathers and mothers and between older and younger children. The gender interaction effects are not significant and not large so we reject ideas about gender differences in the association between divorce and guilt. Interesting is that mothers appear to have somewhat more guilt feelings than fathers but this is true for all marital status categories. Although there is a negative overall effect of the child's age on parents' feelings of guilt, we do not find significant interactions between the divorce variables and the age of the child. This is true in both the linear model (Table 13.3) and in the logit model (Table 13.4).

The control variables have a number of interesting effects. First, there is evidence for the role of personality. Persons who are more extravert and more conscientious have lower feelings of guilt, in line with previous studies. A common interpretation is that persons who are more organized and more planful are believed to make fewer 'mistakes' and therefore have fewer occasions about which they may feel guilty (Fayard et al. 2012). Extraversion is also negatively related to guilt in previous studies and is often explained in terms of the greater cognitive focus of introvert persons on the self (Abe 2004). We find a number of behavioral and situational factors that are also affecting guilt. Parents who experience financial problems report more feelings of guilt. Drug use is positively correlated with guilt, as one would expect, but the number of drug users is small. Smoking and drinking are not associated with guilt. There is no effect of working hours and there is a marginally significant interaction of gender and working hours (the positive effect of working hours on guilt is stronger for mothers).

Table 13.3 Random effects logit of feelings of guilt of parents toward their oldest biological child

|  | Model 1 | Model 2 | Model 3 | Model 4 |
| :---: | :---: | :---: | :---: | :---: |
| Agreeableness (z) | . 024 | . 025 | .152* | . 018 |
|  | (.072) | (.072) | (.075) | (.073) |
| Extraversion (z) | -.197* | -.196* | -. 155 * | -.192* |
|  | (.064) | (.064) | (.066) | (.065) |
| Conscientiousness (z) | -. $355 *$ | -. $352 *$ | -. $251 *$ | -.352* |
|  | (.068) | (.068) | (.070) | (.068) |
| Poverty index | .199* | .201* | .164* | .200* |
|  | (.059) | (.059) | (.060) | (.060) |
| Working hours (z) | . 070 | . 081 | . 130 | . 073 |
|  | (.083) | (.083) | (.085) | (.083) |
| Hours x mother | . 125 | . 112 | . 125 | . 124 |
|  | (.119) | (.119) | (.122) | (.119) |
| Drug use | .764* | .749* | .850* | .765* |
|  | (.268) | (.268) | (.275) | (.268) |
| Daily alcohol | . 157 | . 159 | . 147 | . 155 |
|  | (.164) | (.163) | (.167) | (.164) |
| Smoker | . 183 | . 181 | . 169 | . 186 |
|  | (.162) | (.162) | (.167) | (.163) |
| Mother vs father | . 462 * | . $525 *$ | . $514 *$ | .466* |
|  | (.137) | (.152) | (.142) | (.138) |
| Age of child | -.040* | -.042* | -.049* | -.040* |
|  | (.005) | (.006) | (.006) | (.005) |
| Quality relation child |  |  | -1.045* |  |
|  |  |  | (.072) |  |
| Church attendance |  |  |  | . 034 |
|  |  |  |  | (.071) |
| Liberal family values |  |  |  | . 031 |
|  |  |  |  | (.075) |
| Separated/single vs married | .786* | 1.101* | .753* | .806* |
|  | (.211) | (.333) | (.222) | (.212) |
| x mother |  | -. 604 |  |  |
|  |  | (.411) |  |  |
| x age child |  | . 017 |  |  |
|  |  | (.019) |  |  |
| x quality relation child |  |  | .293* |  |
|  |  |  | (.164) |  |
| x church attendance |  |  |  | -. 205 |
|  |  |  |  | (.225) |
| x liberal family values |  |  |  | -.414* |
|  |  |  |  | (.219) |
| Separated/repartnered vs married | . 941 * | .980* | .946* | .902* |
|  | (.172) | (.259) | (.178) | (.184) |

Table 13.3 (continued)

|  | Model 1 | Model 2 | Model 3 | Model 4 |
| :---: | :--- | :--- | :--- | :--- |
| x mother |  | -.076 |  |  |
| x age child |  | $(.333)$ |  |  |
|  |  | .005 |  |  |
| x quality relation child | $(.015)$ |  |  |  |
|  |  |  | $.520 *$ |  |
| x church attendance |  |  | $(.133)$ |  |
|  |  |  |  | .099 |
| x liberal family values | $-2.958 *$ | $-2.998 *$ | $-3.107 *$ | $-2.960 *$ |
|  | $(.145)$ | $(.151)$ | $(.153)$ | $(.146)$ |
| Constant | 3203 | 3203 | 3203 | 3203 |
|  | 7062 | 7062 | 7062 | 7062 |
| N persons |  |  | .162 |  |
| N person-waves |  |  |  | $(.206)$ |

Source: LISS Family Module 2015, 2016, 2017
Standard errors in parentheses. Multiple imputation. $\sim p<0.10,{ }^{*} p<0.05$
In Model 3, we test our first series of interaction effects that are informative of altruism and empathy. There is a significant interaction of the quality of the parent-child relationship and divorce on guilt. More specifically, we find that the effects of divorce and repartnering are stronger when the relationship with the child is more positive. Both the interaction effects are statistically significant. The effect for single divorced parents becomes $.096 / .262=37 \%$ larger for each standard deviation increase in the quality of the parent-child relationship. For the effect of repartnered parents, the effect becomes $.169 / .335=50 \%$ larger per standard deviation increase in the quality of the parent-child relationship. In the logit model in Table 13.3, we also find significant interactions. These findings are in line with the notion of altruism and empathy since parents should care more for the possible harm that a divorce has done when they hold their children closer.

The hypothesis about social norms is tested in Model 4. We start with individual norms, as reflected in attitudes about marriage and divorce. In line with expectations, we find that the divorce effect is weaker for parents who have more liberal values. In both the linear and the logit model, this interaction only applies to single divorced parents. While these findings are partially in line with our hypothesis, we do not find any significant interaction between divorce and church attendance. The interactions are also very small, both in the linear and in the logit models. In other words, to the extent that morality plays a role, it lies more in a parent's individual norms than in the normative context in which a parent is embedded. In two additional models (not shown), we explore the interactions of church attendance and marriage attitudes one-by-one. We found the same result: there is no significant interaction of divorce and church attendance when the attitude interactions are excluded and there still is a significant interaction of attitudes and divorce and when the church attendance interactions are excluded.

Table 13.4 Sensitivity regression models of guilt feelings

|  | (1) Guilt feelings in general (OLS) | (2) Feelings of guilt toward the child residualized (re model) | (3) Feelings of guilt toward the mother (re model) |
| :---: | :---: | :---: | :---: |
| General shame feelings ( z ) | .037* |  |  |
|  | (.018) |  |  |
| General guilt feelings (z) | . 271 * |  |  |
|  | (.019) |  |  |
| Agreeableness (z) |  | . 019 | . 011 |
|  |  | (.019) | (.023) |
| Extraversion (z) |  | -.057* | -. 017 |
|  |  | (.017) | (.021) |
| Conscientiousness (z) |  | -.067* | -.144* |
|  |  | (.017) | (.021) |
| Poverty index |  | . $030 *$ | . 031 |
|  |  | (.014) | (.019) |
| Drug use |  | .156* | .248* |
|  |  | (.068) | (.092) |
| Daily alcohol |  | .074* | .115* |
|  |  | (.038) | (.051) |
| Smoker |  | . 003 | -. 013 |
|  |  | (.042) | (.058) |
| Mother vs father |  | .096* | .191* |
|  |  | (.032) | (.041) |
| Age of child |  | -.016* | -.005* |
|  |  | (.001) | (.002) |
| Separated/single |  | .276* | -. 020 |
|  |  | (.055) | (.076) |
| Separated/ repartnered |  | . 374 * | -. 049 |
|  |  | (.045) | (.058) |
| Constant | . 003 | -. 119* | -. $215 *$ |
|  | (.012) | (.027) | (.036) |
| Observations | 6785 | 6785 | 4477 |
| Adjusted $R^{2}$ | . 074 |  |  |

Source: LISS Family Module 2015, 2016, 2017
Standard errors in parentheses
${ }^{\sim} p<0.10,{ }^{*} p<0.05$

The final step of the analysis addresses the issue of guilt proneness. For this, we use questions about general feelings of guilt and shame. In the first model of Table 13.4, we regress feelings of guilt toward the child on these more general feelings of guilt and shame. We see positive effects, as one would expect, especially of
guilt but also of shame. Next, we calculate the residual from this model and use this residual as a dependent variable in a subsequent model. This residual is a measure of guilt toward the child, net of more general feelings of guilt, and can be interpreted as guilt that is not due to interpersonal differences in guilt proneness. The model essentially shows the same effects as were found in Table 13.3. This provides additional evidence that the effects of divorce on guilt are indeed specific to the child.

In the last model of Table 13.4, we use as dependent variable the feelings of guilt that parents have toward their own parents (i.e., their mother). The sample size is smaller since not all parents have a living mother. We see no significant effects of divorce on feelings of guilt toward the mother, showing again that the effect that we find for feelings of guilt toward children is related to normative and empathic concerns about the child. Interesting is that some of the control variables here have even stronger effects. For example, alcohol consumption is associated with feelings of guilt toward the mother than toward the child.

### 13.5 Conclusion

The analysis provided the first systematic piece of evidence that divorced parents have more feelings of guilt toward their children than married parents. The effects are significant, substantial in size, and persist when parents and children are older. Moreover, the effects are not due to a more general tendency to feel guilty or shameful and they are targeted specifically toward the child and not to other primary relations like the mother. In a more general way, these findings point to another way in which a divorce negatively affects well-being. Feelings of guilt are positively associated with indicators of well-being such as depression and may therefore explain why especially parents suffer emotionally from a divorce rather than couples without children who break up (Leopold and Kalmijn 2016).

The analysis has also provided evidence for two important theoretical explanations of the development of guilt. First, we find evidence for the moral dimension of guilt: the notion of being a 'good parent'. The evidence shows that persons who adhere to more traditional norms about marriage and family issues, are more negatively affected by a divorce. There was a significant interaction effect of divorce and marriage attitudes on feelings of guilt. We did not find an interaction of church attendance and divorce, suggesting that personal norms are more relevant for how people feel than the norms in their social context.

Second, we find evidence for the role of altruism and empathy. Guilt arises in part because people empathize with the suffering of others and the case of divorce is a clear example of this, given the evidence that a divorce negatively affects the well-being of children. We show that the effect of divorce on guilt is stronger when the parent-child relationship is stronger. This is evidence of empathy because parents are probably more concerned with the well-being of their children when the relationship is more positive.

The current study offers initial findings on the link between divorce and guilt and will hopefully inspire further analyses of the problem. One of the puzzles is that the evidence for the moral dimension in the present analysis is weaker than the evidence for the role of altruism. Of the two normative variables, only one had a significant moderator effect and this was only significant for separated parents who did not repartner and not significant for repartnered separated parents. The variable for testing the role of altruism - relationship quality - was significant for both groups of separated parents and also consistent across models (linear and logit). While this suggests more support for the role of altruism and empathy, the indicator for testing this perspective was more indirect. A more direct test of the theory could have been obtained by using measures of children's well-being as possible moderators of the divorce effect. The current data do not have such measures and we think future studies need to be done to examine more systematically how altruism plays a role in the link between divorce and guilt.

One of the more surprising findings in this study lies in the role of the age of the child. One would expect that the effect of divorce on guilt would be more pronounced for parents with younger children but we found a clear divorce gap all through the child's age range (the age-divorce interaction was insignificant). Perhaps one reason for this finding is that in some of the cases where the children are older, the divorce may have been recent. The data do not have exact information on when the divorce occurred - which is one important drawback of our otherwise original data - and this may bias the age interaction downward. Better and more direct tests of age effects could be obtained with information on the timing of divorce.

There are also other ways in which research on the link between divorce and guilt can be advanced. First, it would be important to enrich the measurement. More items could be used to measure guilt in specific relationships and the measures of guilt could be amplified with measures of shame. Many studies have pointed to the conceptual differences between shame and guilt and several studies have also explored the causal relationships between the two. Second, it would be interesting to explore the role of guilt for well-being. There has been debate about whether guilt is important for depression but to the extent that there is an effect, guilt may play a mediating role. The effect of divorce on parents' well-being can be mediated by guilt, but the causal order between guilt and well-being is somewhat ambiguous. Hence, longitudinal designs are needed to disentangle such effects. Third, it would be interesting to generalize the concept of guilt in the case of divorce to the more general notion of 'being a good parent'. There are strong normative expectations in society about what constitutes 'a good parent' and it is important to study how parents respond to such expectations in situations where they are unable - for whatever reason - to meet these expectations. A divorce is an important case in this respect, at least in some conditions, but it is also just one example of a more general phenomenon.

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# Chapter 14 <br> Quality of Non-resident Father-Child Relationships: Between "Caring for" and "Caring About" 

Aušra Maslauskaitė and Artūras Tereškinas


#### Abstract

Using the cross-sectional Fathering after Union Dissolution in Lithuania survey data (2016), this chapter analyzes the quality of non-resident father-child relationships after a parental union dissolution. We assess the relationship quality perceived by fathers and focus on both positive elements such as intimacy and approval and negative ones such as conflict and child's dominance in relationships. The influence of fathers' resources such as their personal well-being, socioeconomic resources, parenting practices and a family situation on relationship quality is also examined in the chapter. Following Smart (J Law Soc 18(4):485-500, 1991) we use the concepts of "caring for" and "caring about" specifically developed to describe the post-divorce father-child relationship quality. We make the hypotheses that fathers' higher personal, socio-economic resources and involved parenting practices contribute positively to the "caring for" type of relationship, while limited resources contribute to the "caring about" type of relationships. Our findings demonstrate that the father-child relationship quality is associated with personal and parenting resources, while the effect of men's socio-economic resources is not relevant if child-related characteristics are controlled. We also find the positive association between fathers' re-partnering and new children and the quality of the relationships (less conflict and more paternal authority) with non-resident children.


Keywords Divorce • Fathering • Non-resident father-child relationships • Fathers' resources $\cdot$ Lithuania

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### 14.1 Introduction

The rise in divorce and union dissolution reshaped the social arena of fathering; many fathers no longer live with their children (Andersson et al. 2017). Life in separate households poses substantial challenges for the continuity and quality of nonresident father-child relationships, which, in many cases, are beneficial for both father and children (Amato and James 2010). Children whose fathers are more involved in parenting experience higher academic achievements, life satisfaction, less emotional distress, and fewer behavioral problems (Young et al. 1995; Braver and Lamb 2013). For men, the continuity of these relationships is also relevant in adjusting to divorce (Amato 2000; Amato and Dorius 2010), achieving higher life satisfaction, experiencing fewer depressive symptoms (Eggebeen and Knoester 2001; Kamp Dush 2013; Waldfogel and Ehlert 2016), and negotiating male identity (Collier and Sheldon 2008).

Although there exists a rather large body of research on non-resident fathering (particularly in the US and some European countries), it predominantly concerns the contact frequency and father involvement in child support (Amato and Dorius 2010). Researchers paid substantially less attention to the quality of non-resident father-child relationships that, as it has been proven, is more important for children in the post-divorce environment than the quantity of time spent together (Amato and Gilbreth 1999; King and Sobolewski 2006). Some recent studies focused on these issues examining fathers' parenting styles (Bastaits et al. 2015), their effect on child well-being (Bastaits et al. 2012, 2014), father-child emotional closeness and child outcomes (Booth et al. 2010). Nonetheless, despite the growing interest in the qualitative side of the father-child bond, this research field remains underdeveloped.

In this chapter, we focus on the quality of non-resident father-child relationships after a parental union dissolution in order to identify the father-related factors that contribute to it. We assess the relationship quality perceived by fathers and focus on both positive elements such as intimacy and approval and negative ones such as conflict and lack of parental authority in relationships. We examine how relationship quality is shaped by fathers' resources including their personal well-being, socio-economic resources, parenting practices, and family situation. Our research is based on the cross-sectional Fathering after Union Dissolution in Lithuania survey data collected in a country characterized by a long divorce tradition and high divorce rates (Eurostat 2017). The share of children who experience parental union dissolution by the age of 15 is estimated in Lithuania at around $35 \%$ (Andersson et al. 2017). The Lithuanian divorce legislation does not entail the joint physical custody thus, after a divorce child's place of residence is determined with one of the parents, and a non-resident parent receives the visitation rights. As a consequence, an absolute majority of children after the parental union dissolution lives with mother. However, the country has also experienced significant shifts in fatherhood discourse. The nurturing role of father gained some importance and was reinforced by social policies oriented towards more gender equal parenting in families (Maslauskaite and Tereškinas 2017).

Our chapter contributes to this research field in several ways. First, we focus on the non-resident father-child relationship quality, which remains an under-researched issue despite the growing scholarly interest. Second, existing research predominantly concentrates on paternal relationships in the North American, Northern or Western European context. Our research shifts the perspective to the other side of Europe. We investigate one Baltic country, i.e. Lithuania in which the post-divorce legislation is strongly oriented towards the father's economic provider role, but it supports, to the very limited extent, his nurturing role and his right to care for children after family dissolution (Tereškinas and Maslauskaite 2019). Third, we examine the non-resident father and child relationships based on the dataset, which, in a very detailed way, records information of a post-divorce fathering in Lithuania that is, to our knowledge, the only one of this kind in the Baltic and Eastern European countries.

### 14.2 Theoretical Background, Previous Research, and Hypotheses

We draw our theoretical background from two perspectives. First, we use Smart's (1991) conceptualization of care specifically developed to reflect the father-child relationships in a post-divorce context. Second, we rely on the recourse theory (Foa and Foa 1980) that explains the factors shaping the quality of paternal relationships.

While much research on father-child relationship quality after divorce (Bastaits et al. 2015; Bastaits et al. 2012) is based on parental style framework (Baumrind 1968), we argue that this framework has some limitations. Parenting style literature suggests that the amount of support and control provided by a parent determines parenting quality which could consequently result in an authoritative, authoritarian, permissive or uninvolved parenting style (Baumrind 1968). Authoritative fathering combines emotional warmth with rule setting and is the most beneficial for child's needs (Amato and Sobolewski 2004; Braver and Lamb 2013). High control and low support are characteristic of an authoritarian fathering; permissive parenting style points to high support and low control while uninvolved fathering exhibits low support and low control.

However, the parental style framework has some drawbacks. First, it was developed for the analysis of married couples (Baumrind 1968) and it does not consider various constraints that shape the relationship opportunities for non-resident father. Time restrictions make it problematic to maintain relationships combining emotional warmth, support and effective control (Amato and Sobolewski 2004). In addition, visitation arrangements are often limited to weekends and thus, encourage fathers to engage in leisure activities (Pasley and Braver 2004). Consequently, many fathers develop a style of "recreational fathering" characterized by the leisure or "so-called Disneyland activities" (Amato and Dorius 2010; Stewart 1999). Second,
the parental style framework does not capture tensions and contradictions of postdivorce fathering in contemporary society. In the past several decades, many developed countries experienced the normative and legal turn towards a more active role of the father after the divorce. The previously widespread pattern of "absent fathers" (Bradshaw et al. 2002) or "deadbeat dads" (Cassiman 2008), when men restrained from contacts with their children after divorce, was replaced by a more involved pattern of fathering. This has been reflected in the overall increase in the frequency of non-resident father-child contact over divorce cohorts reported for many countries (Amato et al. 2009; Westphal et al. 2014). The shift is related to the broader societal changes: a generally growing emphasis on the caring role of the father, normative shifts towards more egalitarian gender roles in the family and the introduction of more gender-neutral child custody legislation implemented across the EU and North America. However, some argue that these developments produce tensions between fathers' rights to care established in the legislation and supported by the norms of involved fatherhood, on the one hand, and fathers' capability to care, on the other hand.

Reflecting upon this tension, Smart (1991) applies the concepts of "caring about" and "caring for" to the fathering in a post-divorce family context. She argues that "caring for" relationships reflect the everyday activity of meeting the child's needs and these activities include both emotional and practical work. "Caring about" expresses an intellectual concern and the abstract notion of feelings of care (Smart 1991). It has to be stressed that Smart's (1991) conceptualization of care differs from the one suggested by other authors who confine "caring for" to practical care, while "caring about" - to emotional care (Calasanti and Slevin 2001). Thus, fathers might be inclined to "care about" their children and this inclination is driven by legal and cultural shifts related to post-divorce fathering. Nevertheless, men might lack the capacities, skills and personal resources to "care for", because it is mothers who are predominantly involved in this type of care before separation (Smart 1991). "Caring about" might mean more frequent meetings with non-resident children that are not accompanied by "caring for" practices in relationships.

Although Smart's (1991) concepts have not yet been applied to the quantitative empirical research, they offer significant insights and complement the parenting style approach (Baumrind 1968). The parallels could be drawn between the "caring for" fathering and parenting styles beneficial to the children. Parents' emotional and practical involvement in the child's everyday life contributes to the higher levels of intimacy in relationships, paternal approval and, thus, the higher levels of support. In contrast, the "caring about" fathering distinguished by a low personal and emotional involvement results in lower levels of paternal authority and effective control. We have to recognize that even if "caring about" relationships are less beneficial to the child, they might still be ultimately more advantageous than no father's contact with the child. However, due to the empirical limitations, this type of relationships is beyond the scope of this research. Thus, hereinafter we will use the notions of "caring for" and "caring about" father-child relationships. The first notion indicates the higher levels of intimacy and support as an outcome of higher personal and emotional involvement in childrearing. The second notion points to lower paternal
authority, which in the everyday life might manifest in a loss of control over the child and more conflicts in the relationships.

The other framework, which shapes the theoretical background of the research, is the resource theory that uncovers factors associated with the quality of paternal relationships. The general underlying assumption suggests that the higher the amount of resources possessed by a person, the more likely they are to be shared with others (Foa and Foa 1980, p. 93). In addition, the more resources shared, the better are non-custodial father-child relationships. The resources encompass the father's personal well-being, perceived economic and social status resources, communication with the mother and co-parenting (Rettig et al. 1999). In the following, we will formulate our research hypotheses based on the theoretical assumptions and the existing research evidence.

Firstly, the research on divorced fathers' personal well-being indicates that divorced parents generally experience a higher risk of depression, unhappiness, and health problems (Braver and Lamb 2013). Lower emotional and psychological well-being is associated with the negative parenting strategies and lower level of responsiveness to the child's needs (Pruett et al. 2003). Hence, we may expect that higher levels of non-resident fathers' personal well-being are positively associated with the "caring for" type of relationships and negatively with the "caring about" type of relationships (Hypothesis 1).

Secondly, following the resource theory, we argue that socio-economic resources are relevant in maintaining the higher quality of nurturing relationships after a partnership dissolution. Higher educated fathers will be more aware of the child's developmental needs thus, they will be more successful in pursuing the relationships with the higher level of support (Bastaits et al. 2015). Higher educated fathers also have better communication skills and abilities to manage the relationships and better conflict solving skills (Amato and James 2010) beneficial for the non-resident fatherchild relationship quality. Fathers of a higher socio-economic status might be also more conscious of the adverse effects of divorce on child development and thus might put more effort to sustain the close paternal bond with the child. Moreover, educated fathers are also more involved in childrearing tasks prior to divorce (Hook and Wolfe 2012), therefore, they are most likely to have stronger dedication to actively participate in the child's upbringing after a partnership dissolution. The father's economic resources are also relevant to child maintenance duties that are an important marker of the father's involvement in a child's life (Carlson and McLanahan 2006; Kalmijn 2015). This leads to our second hypothesis according to which higher socio-economic resources will positively contribute to the "caring for" type of relationships and will reduce the occurrence of "caring about" type of relationships (Hypothesis 2).

Thirdly, in reflecting on the relationship quality one should also consider fathering practices, which are routine action men perform to exchange resources and to fulfill their role as non-resident fathers. By spending time with their children nonresident fathers manifest their availability to them (Lamb 2004). Visitation for nonresident fathers is the only opportunity to engage with children and to know their needs and worries as well as to exercise their paternal authority and control. Child
alimony payments might also have an impact on the relationship quality because financial contributions reflect fathers' responsibility for the child's material living conditions and the continuity of the fathers' role as economic providers. Besides, the child support and contact frequency are interconnected, thus fathers who pay child support meet their children more often (Nepomnyaschy 2007). Additionally, the exchange of resources in post-divorce context is embedded in co-parenting relationships. Parental conflict leads to low levels of co-parenting and strengthens the maternal gatekeeping (Allen and Hawkins 1999) that sets serious limits to the development of the "caring for" relationships. Therefore, our third research hypothesis suggests that involved fathering practices will lead to "caring for" relationships, while uninvolved fathering practices will be positively associated with the "caring about" relationships (Hypothesis 3).

Fourthly, father's re-partnering and new children might negatively affect the sharing of resources with children from his previous unions. Men with children from different partnerships might experience competing time, financial, and emotional demands, therefore, it could be more difficult for them to build nourishing relationships with children from their previous partnerships (Swiss and Le Bourdais 2009; Manning et al. 2003). Re-partnered fathers "swap" old children for the new ones; they invest in new children, while their offsprings from previous unions receive low paternal support and control (Furstenberg Jr and Nord 1985). Evidence suggests that "swapping" occurs only when men have to choose between new biological children and non-resident biological children (Manning and Smock 2000). Moreover, some argue that remarriage could be beneficial for father-child relationships. A new partner might encourage the paternal involvement with non-resident children supporting father's responsibilities and taking care of the household duties (Hetherington 2006). In addition, re-partnered fathers might be more involved, because they have more economic resources compared to single divorced men (Seltzer 1991). Furthermore, re-marriage signals father's attachment to the traditional family form and it encourages his paternal commitments to the non-resident children (Cooksey and Craig 1998). Thus, we expect that fathers' family transition will in a negative way affect "caring for" relationships only for re-partnered fathers with new biological children; moreover, we expect that these fathers will experience more "caring about" type of relationships (Hypothesis 4).

### 14.3 Data and Methods

Our analysis is based on the representative Fathering after Union Dissolution in Lithuania survey of non-resident fathers with under-aged children in Lithuania ( $\mathrm{N}=1500$ ). The survey was conducted in 2016. The sample was obtained by using a stratified sampling method. The respondents were men with non-resident children under 18 years of age from dissolved cohabitations or marriages. Face-to-face interviews were carried out with respondents in their homes by using a standardized
questionnaire. The survey recorded a wide range of themes related to the men's life course events, including partnership and fertility histories, divorce process and postdivorce relationships with child's mother, respondents subjective and psychological well-being, child support payments, father-child contacts and the types of contacts, father-child relationship characteristics, men's current partnerships, and sociodemographic, socio-economic and well-being indicators.

From the original dataset, we excluded men who never lived with their children and those fathers who did not contact their non-resident children in the 12 months preceding the interview. Following the questionnaire, these fathers did not report on the quality of the relationships with their children. As the consequence, our effective sample included 1225 non-resident fathers.

### 14.3.1 Dependent Variables

We measure the quality of paternal relationships by using the Network of Relationships Inventory - Relationship Qualities Version (NRI - RQV) (Buhrmester and Furman 2008). A short version of the NRI-RQV was used, which was developed in pairfam - The German Family Panel (Scales and Instruments Manual 2018). The $N R I-R Q V$ measures positive and negative dimensions in parent-child relationships and it is a self-reported instrument. The positive dimension subscale consists of 3 items and measures paternal approval and intimate disclosure. The items are "Your child tells you what he/she is thinking," "You show recognition for the things your child does" and "You show your child that you respect and like him/her." Negative dimension subscale measures child's dominance and father-child conflict, which signals a lack of paternal authority and effective relationship control. The subscale includes 2 items: "Your child gets his/her way when you can't agree on something" and "You and your child disagree and quarrel." Each item uses a 5-point frequency scale ranging from $1=$ always to $5=$ never. 3 positive items were inversed thus, higher values indicate more frequent paternal approval and intimate disclosure. For 2 negative items, lower values indicate lower quality.

The dependent variables were developed in the two-stage procedure. First, for the exploratory purposes we applied factor analysis including all items of the NRIRQV scale. Two factors were extracted: one included the items on paternal support (approval and intimate disclosure) and the other - the items on the lack of paternal authority (conflict and dominance). Based on the factor analysis summary index variables were calculated for the items with the loadings above 0.4. Two dependent variables were composed. The first indicates "caring for" paternal relationships and measures approval for child's achievements, intimate disclosure, and respect. The second dependent variable subsumed the items on the conflict and dominance; it reflects the lack of effective control and paternal authority and indicates "caring about" relationships. Both dependent variables were standardized for further analysis.

### 14.3.2 Independent Variables

Based on the theoretical considerations and the research hypotheses the first set of independent variables measures fathers' emotional and psychological well-being. First, fathers' depressive feelings were measured by using the Center for Epidemiologic Studies depression scale (CES-D 8) (Radloff 1977; UNECE 2005). The CES-D 8 records the absence or frequency of depressive feelings experienced during the last week and includes seven items. The summary index variable was composed with the lower values indicating the absence of depressive feelings or lower occurrence and higher values - the more exposure to depressive feelings. Second, we included the variable of the General Life Satisfaction ranging from $1=$ not at all satisfied to $10=$ completely satisfied. Third, the variables of emotional and social loneliness were used. The Survey measured self-perceived loneliness with the shortened version of De Jong Gierveld Loneliness scale (de Jong-Gierveld and Kamphuls 1985). Based on the suggested technique it has been transformed into the Emotional and Social Loneliness variables (de Jong-Gierveld and Kamphuls 1985), ranging from $0=$ absence of loneliness to $3=$ intensely lonely. Fourth, the variable of the locus of control was incorporated. It was measured with the Locus of Control Scale (UNECE 2005) developed to assess an individual perception of the level of control in five life domains (financial situation, work, housing, health, and family life). Each item measured on a 5-point scale. Summary index variable was composed. The above-mentioned variables of well-being were standardized for multivariate regression analysis.

Paternal socio-economic resources were assessed with three variables. First, we included a variable of education with the three categories: below upper secondary (ISCED 0-2), upper secondary (ISECD 3-4), and tertiary (ISCED 6-8). ${ }^{1}$ Second, fathers' financial resources were assessed by using the indicator of the self-perceived financial conditions. The scale is widely used in the national surveys in order to overcome the very high non-response to questions related to the personal or household incomes. The scale ranges from 1 to $5(1=$ severe financial deprivation and $5=$ financial sufficiency). The variable was standardized for the multivariate regression analysis. Third, the father's employment status also included three broad categories: unemployed/inactive, blue-collar worker, and professional.

The post-separation fathering practices were examined by including three variables. First, the categorical variable of child alimony payments during the 12 months prior to the interview $(0=$ non-payment, $1=$ payment $)$. Second, the variable of face-to-face contact frequency with the child in the year preceding the interview ( $1=$ contact once in less than 6 months, $5=$ contact at least once a week). An indicator for co-parenting is father's assessment of relationship with a child's mother, ranging from $1=$ very bad to $5=$ very good. The literature suggests that mother-related characteristics might be also a significant predictor of the father's parenting style (Bastaits et al. 2015), however, our dataset provides only a very inaccurate measure of mothers' education and thus, it was not included into the analysis.

[^46]Fathers' family context was measured with the categorical variable indicating the states of living single, living with a new partner without new biological children and living with a new partner and new biological children. The variable was transformed into dummy variables.

### 14.3.3 Control Variables

Child's age and sex were incorporated into the analysis. Older children have more contact with their fathers than younger ones (Aquilino 2006). However, some argue that the child's transition into early adolescence increases the significance of peer groups over parents and contacts recede (Amato et al. 2009). Child's age at the parental union dissolution is also relevant predictor because more time spent in one household provides more opportunities to develop a closer emotional bond (McLanahan and Sandefur 1994). Fathers tend to be more involved with sons than daughters (Hetherington 2003), yet, the findings related to gender are inconsistent (Swiss and Le Bourdais 2009).

The geographical distance between a non-resident father and child living areas was also included as a control variable. Men living farther from their children will have fewer opportunities to interact with them and to develop high-quality relationships (Smyth et al. 2001). The variable of geographic distance comprises three categories: same locality (city, town, village), different locality, and different country.

Time elapsed after divorce is also a relevant control variable because it indicates the time available to men to adjust to a union dissolution (Amato 2000). The variable was composed of the information recorded in the partnership calendar and measured in months elapsed after union dissolution.

The descriptive statistics are presented in Tables 14.1 and 14.2. We conducted a multivariate analysis based on the stepwise linear regression models for each of the relationship quality dimensions. The baseline model considers personal well-being variables and the following models include additional sets of variables related to the research hypotheses. The final model presents all sets of independent variables and control variables. There is no collinearity of predictors in all models, we examined this by using VIF.

### 14.4 Results

Table 14.3 presents the results of the multivariate regression analysis for the "caring for" dependent variable (intimacy and approval). Model 1 suggests that statistically significant predictors of "caring for" relationships are social loneliness, depressive feelings and the locus of control, while general life satisfaction and emotional loneliness do not contribute to the model. Lower levels of intimacy and approval are

Table 14.1 Descriptive statistics of unstandardized continuous dependent, independent and control variables ( $\mathrm{N}=1225$ )

| Variables | Mean | SE |
| :--- | :--- | :--- |
| "Caring for" relations (approval, disclosure) (range = 3-15) | 11.1 | 0.07 |
| "Caring about" relations (conflict, dominance) (range =2-10) | 4.6 | 0.04 |
| Depressive feelings (range $=1-22$ ) | 3.8 | 0.09 |
| General life satisfaction (range $=1-10)$ | 2.07 | 0.05 |
| Emotional loneliness (range $=1-3$ ) | 0.92 | 0.03 |
| Social loneliness (range $=1-3$ ) | 1.89 | 0.03 |
| Locus of control (range $=5-25)$ | 17.85 | 0.11 |
| Financial conditions (range $=1-5)$ | 2.87 | 0.02 |
| Frequency of contacts with the child (range =1-5) | 4.6 | 0.03 |
| Co-parenting relationship quality (range $=1-5$ ) | 3.02 | 0.03 |
| Child's age at union dissolution, years | 10.6 | 0.14 |
| Time after union dissolution, months | 59.4 | 1.24 |

Source: Fathering after Union Dissolution in Lithuania 2016

Table 14.2 Descriptive statistics for categorical independent and control variables ( $\mathrm{N}=1225$ )

| Variables | $\%$ | Variables | $\%$ |
| :--- | :--- | :--- | :--- |
| Education level |  | Child's sex |  |
| Below upper secondary | 46.6 | Boy | 52.7 |
| Upper secondary | 31.0 | Girl | 47.3 |
| Tertiary | 22.4 | Geographical distance |  |
| Employment status |  | Same locality | 53.4 |
| Blue-collar workers | 50.1 | Different locality | 34.0 |
| Professionals | 32.8 | Different country | 12.6 |
| Unemployed/inactive | 17.0 | Father's family situation |  |
| Child support payments |  | Single | 52.2 |
| Yes | 80.0 | Re-partnered, no children | 29.0 |
| No | 20.0 | Re-partnered, new children | 18.8 |

Source: Fathering after Union Dissolution in Lithuania 2016
associated with higher levels of social loneliness and depressive feelings ( $b=-0.19$ and $b=-0.10$ ). Fathers with a higher sense of control over their lives also exhibit a higher level of "caring for" paternal relationships (higher intimacy and approval).

In Model 2, we added variables of the father's socio-economic resources. The significant effects associated with the predictors of paternal personal well-being remained in place, although the effect sizes decreased slightly. In addition, the father's employment status is associated in a positive way with relationship quality. Professionals demonstrate higher levels of "caring for" relations compared to the unemployed $(\mathrm{b}=0.43)$. The same direction of the association is observed for bluecollar workers however, the effect size is smaller $(b=0.24)$. Contrary to our expectation, there is no link between subjectively assessed financial situation and education, and "caring for" type of relationships.
Table 14.3 Multivariate regression results for "caring for" relationships (intimacy and approval), unstandardized B, Std. errors

|  | Model 1 |  | Model 2 |  | Model 3 |  | Model 4 |  | Model 5 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | b | SE | b | SE | b | SE | b | SE | b | SE |
| Personal well-being |  |  |  |  |  |  |  |  |  |  |
| Depressive feelings | -0.10** | (0.01) | -0.08* | (0.05) | -0.09 ** | (0.04) | -0.09 ** | (0.05) | -0.12 ** | (0.12) |
| General life satisfaction | -0.01 | (0.04) | $-0.04$ | (0.04) | -0.04 | (0.04) | -0.05 | (0.04) | -0.05 | (0.04) |
| Emotional loneliness | -0.03 | (0.04) | -0.02 | (0.04) | -0.01 | (0.04) | -0.02 | (0.04) | 0.00 | (0.04) |
| Social loneliness | $-0.19 * * *$ | (0.04) | $-0.18 * * *$ | (0.03) | $-0.16 * * *$ | (0.03) | $-0.15 * * *$ | (0.08) | $-0.16 * * *$ | (0.08) |
| Locus of control | $0.15 * * *$ | (0.14) | $0.11 * *$ | (0.04) | 0.07** | (0.10) | 0.08** | (0.03) | 0.07** | (0.03) |
| Resources |  |  |  |  |  |  |  |  |  |  |
| Education (ref. low): |  |  |  |  |  |  |  |  |  |  |
| Intermediate |  |  | 0.08 | (0081) | 0.06 | (0.07) | 0.06 | (0.07) | 0.07 | (0.07) |
| High |  |  | 0.12 | (0.11) | 0.07 | (0.10) | 0.08 | (0.10) | 0.11 | (0.10) |
| Material living conditions (bad -good) |  |  | 0.02 | (0.04) | -0.01 | (0.04) | -0.01 | (0.04) | -0.01 | (0.04) |
| Employment status (ref. unemployed): |  |  |  |  |  |  |  |  |  |  |
| Blue-collar workers |  |  | $0.24 * *$ | (0.11) | 0.07 | (0.11) | 0.07 | (0.11) | 0.04 | (0.11) |
| Professionals |  |  | 0.43*** | (0.14) | 0.19 | (0.14) | 0.20 | (0.14) | 0.10 | (0.14) |
| Fathering practices |  |  |  |  |  |  |  |  |  |  |
| Child support payment (ref. yes) |  |  |  |  | 0.25** | (0.11) | 0.25** | (0.11) | $0.22 * *$ | (0.11) |
| Contacts frequency (low - High) |  |  |  |  | 0.19 *** | (0.02) | $0.19 * * *$ | (0.03) | $0.26 * * *$ | (0.03) |
| Co-parenting (low - High) |  |  |  |  | $0.17 * * *$ | (0.03) | 0.16*** | (0.03) | 0.15*** | (0.03) |
| Time after union dissolution |  |  |  |  |  |  | 0.00 | (0.00) | 0.00 | (0.00) |
| Father's family context (ref. re-partnered, no new children |  |  |  |  |  |  |  |  |  |  |
| Re-partnered, new children |  |  |  |  |  |  | -0.02 | (0.07) | -0.01 | (0.09) |
| Not re-partnered |  |  |  |  |  |  | -0.05 | (0.09) | -0.01 | (0.00) |

Table 14.3 (continued)

|  | Mod |  | Mod |  | Mod |  | Mod |  | Model 5 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | b | SE | b | SE | b | SE | b | SE | b | SE |
| Child's age at union dissolution |  |  |  |  |  |  |  |  | 0.04*** | (0.01) |
| Child's sex (ref. girl) |  |  |  |  |  |  |  |  | 0.03 | (0.06) |
| Geographical distance (ref. same locality) |  |  |  |  |  |  |  |  |  |  |
| Child in different locality |  |  |  |  |  |  |  |  | 0.06 | (0.07) |
| Child in other country |  |  |  |  |  |  |  |  | . $52 * * *$ | (0.13) |
| $R^{2}$ | 0.10 |  | 0.14 |  | 0.25 |  | 0.25 |  | 0.28 |  |

Source: Fathering after Union Dissolution in Lithuania 2016. $* * * \mathrm{p}<0.01, * * \mathrm{p}<0.05, * \mathrm{p}<0.1$

In the next step, we included variables of the fathering practices (Model 3). The frequency of contacts, child support payments and co-parenting are beneficial to the level of intimacy and approval in father-child relationships. Thus, fathers who pay child maintenance exhibit more "caring for" relations compared to fathers who restrain from this obligation $(b=0.25)$. The contact frequency also positively affects the level of intimacy and approval in relationships $(b=0.17)$. In addition, higher quality relationships between a father and mother positively contribute to "caring for" bond ( $\mathrm{b}=0.17$ ). Model 3 also shows that after adding the variables of parenting practices the effect sizes for the variables of personal well-being (social loneliness and locus of control) slightly decreased and the predictor of socio-economic resources (employment status) became insignificant. Thus, it could be that the association between the socio-economic resources and relationship quality is transmitted through fathering practices. Employment and earnings enable fathers to pay child support, negotiate better with the mother, and spend time with children that positively affects higher relationship quality.

In Model 4 we included the independent variables of the father's family context (partnership status, new children, and time after union dissolution). However, none of the variables seems to have an effect in predicting the level of intimacy and approval. In the last step (Model 5), we added control variables. All the above discussed significant predictors remained. In addition, the child's age at a union dissolution contributes in a positive way to the "caring for" type of fathering. Child's sex is not relevant. Surprisingly, the variable of geographical distance shows no difference in relationship quality when a child lives farther away compared to the one who lives closer. However, fathers with children living abroad report higher levels of intimacy and approval ( $b=0.52$ ).

Summing up, intimacy and approval ("caring for" relationships) are associated with some aspects of personal resources (well-being) and fathering practices, while socio-economic recourses and father's family situation are not significant. Social loneliness and depressive feelings are inversely linked with "caring for" type of fathering, while fathers with a higher sense of being in charge of their lives report more intimacy and approval in relationships. In addition, a more intimate bond is manifest when fathers pay child support, have good relationships with the child's mother and see their children more often. In talking about the association between the father's well-being and relationship quality we have to admit that our data do not allow us to examine the direction of causality, thus, it could be that the lower personal well-being is an outcome of unsatisfying relationships with the child.

Table 14.4 presents the results of the multivariate regression analysis for the "caring about" type of relationships (conflict and child's dominance). "Caring about" variable coded with lower values expressing lower quality, i.e. higher conflict and child dominance. Our modeling strategy replicated the one discussed above. In the first step (Model 1), we included only variables indicating the father's personal well-being. The results show the negative association between "caring about" fathering and emotional loneliness, social loneliness, life satisfaction, while the association proves to be positive for the locus of control. Thus, fathers experiencing higher levels of emotional loneliness $(\mathrm{b}=-0.17)$ and social loneliness
Table 14.4 Multivariate regression results for "caring about" relationships (conflict and child's dominance), unstandardized B, Std. errors

|  | Model 1 |  | Model 2 |  | Model 3 |  | Model 4 |  | Model 5 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | b | SE | b | SE | b | SE | b | SE | b | SE |
| Personal Well-being |  |  |  |  |  |  |  |  |  |  |
| Depressive feelings | -0.03 | (0.05) | -0.02 | (0.05) | -0.03 | (0.08) | -0.02 | (0.05) | -0.02 | (0.05) |
| General life satisfaction | -0.08 ** | (0.04) | $-0.09 * *$ | (0.04) | -0.10 ** | (0.04) | -0.08* | (0.04) | -0.09 ** | (0.04) |
| Emotional loneliness | -0.17 *** | (0.04) | $-0.17 * * *$ | (0.04) | $-0.17 * * *$ | (0.04) | $-0.17 * * *$ | (0.04) | $-0.17 * * *$ | (0.04) |
| Social loneliness | $-0.08 * *$ | (0.03) | $-0.08 * *$ | (0.03) | $-0.08 * *$ | (0.03) | $-0.08 * *$ | (0.03) | $-0.08 * *$ | (0.03) |
| Locus of control | 0.11** | (0.04) | 0.11** | (0.04) | 0.11** | (0.07) | 0.10** | (0.04) | 0.09** | (0.04) |
| Resources |  |  |  |  |  |  |  |  |  |  |
| Education (ref. low): |  |  |  |  |  |  |  |  |  |  |
| Intermediate |  |  | 0.06 | (0.08) | 0.06 | (0.08) | 0.06 | (0.08) | 0.05 | (0.08) |
| High |  |  | 0.11 | (0.11) | 0.12 | (0.11) | 0.11 | (0.11) | 0.10 | (0.10) |
| Material living conditions (bad - good) |  |  | 0.02 | (0.04) | 0.01 | (0.04) | 0.02 | (0.04) | 0.01 | (0.04) |
| Employment status (ref. unemployed): |  |  |  |  |  |  |  |  |  |  |
| Blue-collar workers |  |  | -0.15 | (0.12) | -0.06 | (0.13) | -0.06 | (0.13) | $-0.08$ | (0.13) |
| Professionals |  |  | -0.13 | (0.14) | -0.05 | (0.15) | -0.06 | (0.15) | -0.04 | (0.15) |
| Fathering practices |  |  |  |  |  |  |  |  |  |  |
| Child support payment (ref. yes) |  |  |  |  | $-0.25 * *$ | (0.12) | $-0.26 * *$ | (0.12) | $-0.20$ | (0.12) |
| Contacts frequency (low - high) |  |  |  |  | 0.03 | (0.03) | 0.02 | (0.05) | $-0.01$ | (0.03) |
| Co-parenting (low - high) |  |  |  |  | 0.02 | (0.03) | 0.02 | (0.03) | -0.02 | (0.03) |
| Time after union dissolution |  |  |  |  |  |  | -0.01** | (0.00) | 0.00 | (0.00) |
| Father's family context (ref. re-partnered, no new children |  |  |  |  |  |  |  |  |  |  |


| Re-partnered, new children |  |  |  | 0.27*** | (0.10) | 0.28*** | (0.10) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Not re-partnered |  |  |  | 0.15* | (0.08) | 0.12 | (0.08) |
| Child's age at union dissolution |  |  |  |  |  | $-0.03 * * *$ | (0.01) |
| Child's sex (ref.girl) |  |  |  |  |  | 0.02 | (0.06) |
| Geographical distance (ref. same locality) |  |  |  |  |  |  |  |
| Child in different locality |  |  |  |  |  | -0.14* | (0.08) |
| Child in other country |  |  |  |  |  | -0.02 | (0.14) |
| $R^{2}$ | 0.07 | 0.07 | 0.08 | 0.10 |  | 0.12 |  |

( $\mathrm{b}=-0.08$ ) also experience more conflict and lack of authority in their relations with children. Men scoring higher on the locus of control also experience less conflict and dominance of child $(\mathrm{b}=0.11)$ (less "caring about" type of relationships). Interestingly, we observe that higher life satisfaction is negatively associated with more frequent conflict and dominance ( $\mathrm{b}=-0.08$ ).

In the next step (Model 2), we added the variables related to the father's socioeconomic resources; nonetheless, father's education, financial conditions and employment status show not to be significant predictors. In addition to the abovementioned variables, Model 3 included the variables of fathering practices. Child support payment and "caring about" relationships are negatively associated. Thus, fathers paying child support experience more tensions linked to paternal control compared to fathers who withdraw from child support payment. The frequency of contacts and co-parenting are not relevant characteristics in predicting this dimension of relationship quality. It could be noted that after adding fathering practices the effects for predictors of paternal well-being remained stable.

In Model 4, we added the variables of father's family situation and time after the union dissolution. Both regressors are statistically significant. Re-partnered fathers with new children have better relationships (lower level of conflict and less child dominance) compared to fathers in other family contexts $(b=0.27)$. In addition, the relationship quality decreases with the time elapsed after paternal divorce. Model 5 presents the results for all independent and control variables. A father's well-being (emotional and social loneliness, the locus of control, and life satisfaction) anticipates the relationship quality linked to paternal authority and control. Child's age at paternal union dissolution is significantly associated with the relationship quality. There are less conflict and authority-related problems when children are younger. In addition, the above-discussed effects of child support and time elapsed disappear after adding the child-related characteristics. The same is true for the previously observed significant association between time after divorce and relationship quality. The geographical distance between a father and a child also affects relationship quality. Children living farther from their fathers have worse relationships compared to children living in the same locality.

### 14.5 Conclusion

The chapter explored the relationship quality between non-resident fathers and their children after the parental separation. Although it has been acknowledged that relationship quality is among main moderating factors in children and fathers' adjustment to divorce (King and Sobolewski 2006; Amato and James 2010; Waldfogel and Ehlert 2016), the issue is still under-researched (Amato and Dorius 2010). By providing evidence on perceived quality of relationships by father and on various types of father-related factors at play, our study contributes to this expanding field. Following Smart's (1991) distinction between "caring for" and "caring about"
fathering after parental union dissolution and the resource theory (Rettig et al. 1999) we argue that the father's higher personal, socio-economic, and parenting resources contribute positively to the "caring for" or a more nurturing type of relationship. On the contrary, lower resources are associated with non-effective parenting and result in lower relationship quality and more intergenerational conflict that reflect the "caring about" type of fathering. Our study is based on the data from a recent survey of non-resident fathers in Lithuania. The dataset is the only one of this kind in the region; it includes an extensive list of indicators and thus provides the unique opportunity to investigate non-resident fatherhood in this part of Europe.

The research was guided by four hypotheses. According to our first hypothesis, higher levels of fathers' personal well-being are positively associated with the "caring for" type of relationships and negatively, with the "caring about" type of relationships (Hypothesis 1). The hypothesis was supported. The "caring for" bond between a separately living father and a child is most likely to be maintained when men feel generally more in control of their own lives (the locus of control), they are more socially integrated (lower social loneliness) and they confront fewer depressive feelings. The "caring about" relationships characterized by conflict and lower parental authority are associated with a higher level of emotional and social loneliness and the weaker feeling of control over life. Thus, in line with the previous research, our results suggest that personal psychological well-being is the resource used in adopting positive parenting strategies and applying positive parenting skills (Braver and Lamb 2013).

Our second hypothesis stated that higher socio-economic resources positively contribute to the "caring for" type of relationships and reduce the occurrence of "caring about" type of relationships (Hypothesis 2). Surprisingly, the second hypothesis was not confirmed and this contradicts the previous findings (Kalmijn 2015; Bastaits et al. 2015). Men's education, employment status or subjective assessment of financial living conditions are not associated with the "caring for" or "caring about" type of relationships. Even though the effect of higher employment status on "caring for" relationships was positive, it disappeared after adding the variables related to the parenting practices. Thus, it seems that the association between socio-economic resources and relationship quality is transmitted through the parenting practices. Higher socio-economic resources facilitate effective fathering practices (paying child support, more frequent visits to the child, and coparenting) that positively affect higher relationship quality. In addition, we did not find any significant associations between socio-economic resources and "caring about" type of relationships.

In our third hypothesis, we suggest that involved fathering practices lead to "caring for" relationships, while uninvolved fathering practices will be positively associated with the "caring about" relationships (Hypothesis 3). The hypothesis was partially supported. Fathers' report higher levels of "caring for" relationships if they are more engaged (spend more time with children) and responsible for children's material well-being and for developing effective co-parenting relation with a child's mother. Thus, our findings are consistent with the ones reported previously (Carlson
and Turner 2010) and they support Lamb's (2004) assumption on the role of engagement and responsibility in effective fathering. On the other hand, fathering practices do not explain the "caring about" type of relationships. The multivariate regression model that did not consider child-related characteristics indicated the significant association between fathering practice (alimony payments) and "caring about" relationships. Fathers' paying child support reported more conflict and problems in paternal control (more "caring about" relationships). It could signal that fathers tend to exchange money for the power over the children and this could lead to more conflict. However, the effect became insignificant after adding the child's age at a paternal union dissolution and the child's sex. Thus, more conflict and tensions related to paternal control are associated with the child's age. Older children might have autonomy aspirations that lead to confrontation and conflict with the nonresident father.

Finally, our fourth hypothesis assumed that fathers' family transition negatively affects "caring for" relationships only for re-partnered fathers with new biological children; moreover, we expected that these fathers experience more "caring about" type of relationships (Hypothesis 4). The hypothesis was not confirmed. Our results do not show any significant effects of fathers' family transitions on the "caring for" relationships. Nonetheless, re-partnered fathers with new children report less conflict and paternal authority problems compared to re-partnered fathers without new biological children. This finding contradicts not only the argument of the "family swapping" (Furstenberg Jr and Nord 1985) but also the evidence on the negative effect of new biological children (Manning and Smock 2000). We could possibly argue that new partners not only encourage men's involvement with children in taking care of household duties (Hetherington 2006) but also provide support in solving the father-child relationship problems. In addition, it could be that re-partnered fathers with new biological children are more attached to the traditional family forms and obligations (Cooksey and Craig 1998) and thus, they invest more in successfully managing the conflicts with children.

An important limitation of our study is the inability to identify the causal direction between the factors studied and father-child relationship quality. Perhaps these links are bidirectional or simultaneous. However, considering the limited evidence on post-separation fathering in the region, we believe that our contribution highlighting the factors associated with relationship quality is particularly relevant.

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## Part V <br> Consequences for Children

# Chapter 15 <br> Childbearing Across Partnerships in Finland and Germany 

Marika Jalovaara and Michaela Kreyenfeld


#### Abstract

This chapter examines gender differences in "multipartner fertility" i.e., having children with several partners - in Germany and Finland. The analyses focus on women and men born around 1970 who are followed until age 41. We show that multipartner fertility is more common in Finland than in Germany. However, there are large East-West differences within Germany. East Germans are less likely to have a second or third child than West Germans, but those East Germans who progress to a higher order birth often have this child with a new partner. We also find some gender differences in behaviour. Men display lower transition rates than women of having a second child with a new partner. Further, having a first child at an early age is strongly and positively associated with multipartner fertility. No consistent relationship between education and multipartner fertility was found for Germany. In Finland, however, low education is associated with elevated risks of having children with different partners.


Keywords Fertility • Finland • Germany • Multipartner fertility • Stepfamily

### 15.1 Introduction

In all European societies, the break-up of a co-residential partnership has become a common life course event. While a notable number of studies have focused on antecedents of divorce or separation (see e.g. Lyngstad and Jalovaara 2010), less attention has been given to the question how family behaviour develops after union dissolution. Likewise, a growing share of couples with minor children separate (or divorce). Separated parents may re-partner and have further children, which often occurs in step-family constellations. Thus, post-separation family behaviour is of

[^47]growing importance for understanding family and fertility patterns in contemporary societies.

Prior research on "post-separation fertility" has approached the topic from different angles. Some studies have investigated the fertility behaviour of persons in higher order unions, or the fertility behaviour of men and women in stepfamilies (Beaujouan and Solaz 2012; Beaujouan and Wiles-Portier 2011; Buber and Prskawetz 2000; Galezweska 2016; Henz and Thomson 2005; Holland and Thomson 2011; Vikat et al. 1999; 2004). Other studies have adopted a more holistic view on individual life courses and examined whether a person's children all had the same two parents or whether the children originated from different partnerships (Guzzo and Furstenberg 2007b; Lappegård and Rønsen 2013; Manlove et al. 2008; Scott et al. 2013; Thomson et al. 2014). The latter approach is often referred to as "multiple-partner" or "multipartner" fertility. Much of this research is anchored in concerns over the well-being of children of low educated men. Men with a low level of education are particularly likely to have children with different partners, potentially leading to less paternal involvement and men's difficulties in financially supporting all their children (Guzzo and Furstenberg 2007a, b; Manlove et al. 2008).

This paper adds to the literature on multipartner fertility. We examine how the patterns of multipartner fertility differ between men and women and between the societal contexts of Finland and Germany. Due to their strong differences in family behaviour, we also distinguish between East and West Germany. We adopt a competing risk framework that examines multipartner fertility from the perspective of individual fertility histories. More specifically, we follow individuals from the birth of the first (and second) child and model two outcomes: having a second (or third) subsequent child with the same partner as the previous child, or having a child with a different partner. This approach is similar to the one adopted in Thomson et al. (2014) and Lappegård and Rønsen (2013). The approach differs from analyses on stepfamily fertility and fertility in higher order unions (Beaujouan and Solaz 2012; Holland and Thomson 2011; Vikat et al. 1999) that focus on fertility patterns among persons (or parents) once they have entered a new union. The research design is discussed in greater detail in the data and method section of this chapter.

Data for this analysis come from Finnish registers and from the German Family Panel pairfam (Version 9.1). The analysis focuses on childbearing of cohorts born around 1970 who were around age 41 at last observation. The choice of cohorts maximizes comparability between Finland and Germany. An advantage in analysing persons born around 1970 is that the results will depict behaviour in a recent birth cohort. A caveat is that the cohorts under consideration have not reached the end of their reproductive period yet. This particularly pertains to men, as they are more likely than women to have a child beyond age 41 . This censoring is accounted for in the event history modelling, but it is a shortcoming when we present descriptive measures, such as total number of children at the last observation. To assess the proportion of births beyond age 41, we use Finnish data to examine gender-specific age distributions of births in earlier cohorts that can be followed to a higher age.

### 15.2 Institutional Setting and Prior Research

### 15.2.1 Policy and Demographic Context of Finland and Germany

By selecting Germany and Finland, we compare behaviour in two contrasting welfare state regimes. Germany is usually typified as belonging to a familialistic regime. Major components of the German system have been a low availability of public child care and a tax and transfer system that favours the married single-earner couple. Germany has reformed its family policies recently, though. It has expanded public day care for children below age three since 2005, and it introduced an earnings-related parental leave benefit system in 2007. Also, the maintenance law was recently reformed. Until 2008, German regulations granted comparatively generous spousal maintenance for the "caregiving" ex-spouse after divorce (in most cases, the ex-wife living with children). When evaluating the need for spousal maintenance, the caregiving partner was generally not expected to work full-time until the youngest child reached age 15 . Among other things, this policy was assumed to hinder men from forming a new family after divorce (Bundesministerium der Justiz 2005). In 2008, the law was reformed and since then divorced persons are only granted ex-spousal maintenance as long as the youngest child is younger than age 3 . If children are older, the "caregiving part" can claim ex-spousal support only if (s)he provides evidence that (s)he is unable to work due to childcare obligations (Lenze 2014; Peschel-Gutzeit 2008). East German women rarely profited from the regulation of ex-spousal support. They more often work full-time than West German women and, thus, were less likely to be in need of payments from their ex-spouses after divorce. In addition, East German women are often not married when they have children, and, thus have no access to ex-spousal support. ${ }^{1}$ More important than ex-spousal support is child alimony. The amount of this alimony depends on the income level of the parent who is required to pay the child maintenance fee.

Despite the very recent policy reform that shifts the German institutional framework closer to a "de-familialized" system, the institutional framework in Finland is still markedly different from the German one. With regard to financial obligations between former spouses, divorce or separation represents a much cleaner break. In principle, the law includes a possibility to claim maintenance from the ex-spouse, but such claims are unusual. In practice, claims can only be made to reach the minimum subsistence level, and this is normally guaranteed within the social insurance system anyway. What also decreases potential differences in income between former husbands and wives is that in Finland, the employment rates of men and women are very similar and not only single women but also partnered women tend to be in full-time employment (Eurostat 2018a). Apart from spousal maintenance, both parents are required to participate in the maintenance of their child(ren) according to

[^48]their maintenance capacity. A non-resident parent is usually required to pay child support. Most non-widowed single parents receive child support, but the levels are comparatively low (Hakovirta 2010; Hakovirta and Jokela 2019; National Institute for Health and Welfare Finland 2016). The maintenance obligations are the same after the breakup of a cohabitation and divorce: The financial obligations are in practice limited to child maintenance, and the regulations do not depend on whether the parents were married or not.

Beyond these legal regulations, the family demographic behaviours in the two countries have also notably differed. Since the early 1970s, the period total fertility rates for Germany have been among the lowest in Europe, while for the Nordic countries they have fluctuated at a comparatively high level. Very recently, German period fertility has seen an upturn, while the rates in the Nordic countries have been strongly declining since 2010 (Eurostat 2018b). Despite this recent convergence in period fertility, completed cohort fertility still differs greatly between the two countries. Total fertility for the cohorts born around 1970 amounts to about 1.5 children per woman in Germany (Pötzsch 2016), while cohort total fertility in Finland was 1.8 for women born in 1970-72, which is the same as for women born in 1945-49 (Jalovaara et al. 2018). Moreover, nonmarital cohabitation and nonmarital childbearing have become common in Finland. In 2016, 58\% of first births and $36 \%$ of subsequent births were to unmarried women (Statistics Finland 2018a). For Germany, remarkable differences in family behaviour between East and West Germany have persisted even after the legal unification of the two parts. While East Germans more rapidly progress to the first child than West Germans, parity progressions to second and third children are lower in the East than in the West. Other characteristic features of East German behaviour are low marriage rates and high shares of nonmarital childbearing: Roughly $75 \%$ of all first births are to unmarried women in East Germany compared to $25 \%$ in the West (Pötzsch 2012). Divorce rates in East and West Germany are on a similar level. In 2015, the divorce rate stood at 0.35 in both parts of the country (Bundesinstitut für Bevölkerungsforschung 2018). Little is known on the separation behaviour of couples with children. Our own estimates based on data from the German family panel suggest that $14 \%$ of West German and $27 \%$ of East German couples had separated by the time the first child reached the age of ten (Kreyenfeld et al. 2017). In Finland, the share amounts to $23 \%$ (ibid.).

### 15.3 Prior Findings

Two broad strands of literature have emerged that examined fertility behaviour after separation. The first strand deals with fertility behaviour in higher order unions. Initially, this research focused on fertility behaviour in higher order marriages (Griffith et al. 1985; Thornton 1978; Wineberg 1990). With the increase in cohabitation, this research broadened to include cohabiting unions. Researchers particularly turned their attention to married and cohabiting unions with step-children, i.e.
unions where at least one child originated from a prior partnership. Research on "stepfamily fertility" has revealed that the family size of stepfamilies tends to be larger than that of families with only common children (Kreyenfeld and Martin 2011; Martin 2008; Mignot 2008). This pattern is attributed to "union commitment" whereby couples want to cement their relationship with a common child, so that partners in a stepfamily are more likely to progress to births of higher order than partners with only common children (Henz and Thomson 2005; Holland and Thomson 2011; Thomson 2004; Vikat et al. 1999). Thomson (2004) investigated the fertility preferences of stepfamily members in six European countries, including Finland and Germany (broken down to East and West Germany) and reports that the odds of Finnish stepfamily members to aspire another child are higher than among the West German respondents. However, she reports highly elevated fertility desires among East German stepfamilies, in particular those with two children. Similar results are reported by Henz (2002), who compared stepfamily fertility between East and West Germany.

A limitation in the "stepfamily approach" is that it takes the formation of a stepfamily as a point of departure and thus focuses on only one step in the processes leading to multipartner fertility. One consequence is that births outside cohabitations and marriages are left out of the picture. The second strand of literature fills this void by taking a more holistic stance. This approach studies individuals' fertility histories and focuses on the question whether children originate from the same or different partners. The term "multi-partnered fertility" or "multipartner fertility" is frequently used to typify this area of research (Carlson and Furstenberg 2006; Guzzo and Furstenberg 2007a, b; Manlove et al. 2008). ${ }^{2}$ Carlson and Furstenberg (2006) used data from the US and employed a logistic regression approach to compare the characteristics of mothers and fathers who had all their children with the same partner with those who had children with different partners. Apart from a strong negative educational gradient in multipartner fertility in the father sample, low age at first birth and having a non-union birth were found to be strong predictors of multipartner fertility for both mothers and fathers. Similar findings are reported by Manlove et al. (2008). Kreyenfeld et al. (2017) examined the transition rates to the second child in seven European countries. They controlled for partnership status with a time-varying covariate that distinguished persons in on-going unions, persons in new partnerships, and singles. The patterns were rather uniform in most countries, showing little differences in second birth progressions between on-going and new unions. An exception were East Germans who displayed highly elevated second birth rates in new compared to ongoing unions. The paper also examined differences in second birth transitions by educational levels for Finland and West Germany. It was shown that high education accelerates second birth transitions for persons in ongoing unions. For couples in new unions and for singles, patterns were

[^49]rather irregular, showing no clear relationship between level of education and second birth transition.

The studies that come closest to the approach adopted in this paper were those by Guzzo and Furstenberg (2007a), Thomson et al. (2014), and Lappegård and Rønsen (2013). Guzzo and Furstenberg (2007a) used a competing risk framework with survey data from the US that included female respondents. They modelled the risk of having a child with the same partner as the previous child, and the risk of having another child with a new partner. They found large differences in multipartner fertility by ethnicity with black respondents displaying highly elevated risks of having another child with a new partner. A woman's low age at first birth and low level of education increased the transition rates to multipartner fertility. They further reported that the respondents who were married at previous birth were more likely to have another child with the same partner, but less likely to have a child with a new partner. Lappegård and Rønsen (2013) used Norwegian register data and a competing risk framework to examine men's transition to a further (second, third or fourth) birth. Consistent with previous studies, age at first birth and union context (whether the person was previously married or ever divorced) was shown to be a strong predictor of multipartner fertility. The latter factor was, however, discussed critically and concerns were raised over whether the past partnership was endogenous to multipartner fertility. Thomson et al. (2014) adopted the same approach to examine women's fertility in Australia, US, Norway and Sweden. They reported a mostly positive educational gradient for births with the same partner, but a negative educational gradient for births with a new partner. Interaction model by time period furthermore showed that the negative educational gradient in multipartner fertility had emerged in recent years only and had become steeper in the 2000s.

### 15.4 Hypotheses

Our analysis builds on these prior investigations and compares multipartner fertility from a cross-national perspective. While previous studies often examined the patterns of multipartner fertility among either men or women, we pay particular attention to the gender differences in behaviour. After divorce and separation, the fertility schedule of women and men may follow a different track because of the different constraints women and men are exposed to after the breakdown of their unions. In most cases, children reside with the mother which may limit the possibilities for women to enter a new partnership and have children with a new partner. If mothers have a lower chance of re-partnering after childbirth, they should also be less likely to have a child with a new partner than men. However, women who separate after the birth of a first child may also be inclined to accelerate the transition to the second birth. First, women may feel more pressure to have their children soon because of the biological limits of fertility, which weigh more heavily on women than on
men. Second, a frequently cited motivation for having a second child is to provide a companion to the first-born child (Thomson 2004). As children commonly reside with their mothers after separation, this "sibling effect" may be a stronger motor of fertility for women than for men. Against this background, we expect that the risk of having a child with a new partner is higher for women than for men, in particular when the previous child is still young (Hypothesis 1).

As outlined above, the social policy context in Finland and Germany differs strongly. While Finland follows the concept of a "clean break", Germany adheres to the concept of "post-divorce solidarity". This concept of post-divorce solidarity entails eligibility to ex-spousal support for the economically "weaker partner". This regulation is much less effective in East Germany due to the low marriage rate and the high employment rates among women. In West Germany, such regulation was considered to be a hindrance for divorced men to form a new family (Bundesministerium der Justiz 2005). The maintenance law was reformed in 2008. As most children in our sample were born before the reform of the maintenance law, we assume that the West German men would be less likely to form a new family after divorce than West German women. For Finland and East Germany, we do not expect any gender differences (Hypothesis 2).

Low education has repeatedly been shown to be negatively associated with multipartner fertility (e.g., Thomson et al. 2014). We include education in our models and examine whether its effect differs by gender and country context. Multipartner fertility is a result of several possible prior transitions, in particular the birth of a child outside of any union, separation or divorce. While a strong educational gradient has been reported for all these processes for the case of Finland (Jalovaara and Kulu 2018; Jalovaara and Fasang 2015), evidence for Germany is more mixed. While an educational gradient in non-union births has recently emerged (Konietzka and Kreyenfeld 2017), there is no consistent relationship between education and divorce (Schnor 2014). Against this hypothesis, we assume that high female and male education lowers the chances of multipartner fertility in Finland, but that the pattern may be irregular in the case of Germany (Hypothesis 3 ). We also control for migration background. The US literature examines differences in behaviour by race or ethnicity, but not by migration background. In these studies, it is generally found that ethnic minorities, such as black Americans, display elevated risks of "multipartner fertility" (e.g., Carlson and Furstenberg 2006; Guzzo and Furstenberg 2007a, b). These findings are difficult to translate to the European context with the different ethnic minorities and a diverse migrant population. There is evidence that migrants' separation and divorce rates are relatively low in Germany (Milewski and Kulu 2014), while they are elevated in Finland (Statistics Finland 2018b). Judged only by the migrant's divorce behaviour one would expect multipartner fertility to be more prevalent among the native-born population in Germany than among the foreign-born, while it should be vice versa in Finland (Hypothesis $3 b$ ). There are, however, other factors that determine multipartner fertility among migrants, which is why this hypothesis remains more speculative.

### 15.5 Data and Method

### 15.5.1 Data Sources

For Finland, we use data compiled at Statistics Finland by linking data from a longitudinal population register and registers of employment, educational qualifications and vital events as well as other register sources. The extract used in this study is taken from an $11 \%$ random sample of persons born between 1940 and 1995, which had been recorded in the population of Finland between 1970 and 2009 (permission number TK53-663-11). In this study, we include cohorts born 1969-1971, with full histories of childbearing until 2012. Data on persons who died or emigrated from Finland before the last date for which we have data were omitted from the analyses, which would have reflected the situation had a comparable sample survey been conducted. The main variables of interest are the birth dates of children and the relationship of the children with each anchor person. For Finland, the information concerns the date and year of the birth of each (registered) child and the "id codes" of the other registered parent. The "id codes" were randomly assigned to each person at Statistics Finland and would not enable identification of individuals, but they do enable comparisons of whether the codes are the same or not (e.g. if maternal siblings have the same fathers). For $1.3 \%$ of the children in our data there is no father registered. If, for example, the father of the first child is registered, but this is not the case for the second child, we assume that the second child is from a different father.

For Germany, the data come from the German Family Panel pairfam (Huinink et al. 2011). The German Family Panel is an annual panel survey initiated in 2008. It includes respondents from three birth cohorts: 1971-1973, 1981-1983 and 1991-1993. For this analysis, we use data from the year 2015/16. Furthermore, we have restricted the analysis to the cohorts born 1971-1973 who were on average aged 41 at the time of the last interview. The German Family Panel collects retrospective fertility and partnership histories which are updated at each interview. Different from standard surveys, the partnership biography includes all partnerships, including "dating" relationships. In principle, only partnerships lasting more than 3 months are surveyed. However, if a child resulted from a relationship, the respondents are requested to list the partnership, regardless of the duration and intensity of that particular relationship. We assumed that children are from different partners if the respondent reported having different partners at the times of the births of the respective children. In some cases, we observed a birth in the data, but the respondent did not report to be in a relationship at the time of childbirth ( $4 \%$ of all births). If a respondent did not report a relationship for e.g. the first birth, but had a partner at the time of the second birth, we assumed that the two children originated from different relationships. A great virtue of both data sets is that we are able to link births and partnerships. However, there are limitations related to a country comparison that relies on survey data on the one hand and register data on the other. Unlike register data, survey data suffer from (selective) non-response, and there is
panel attrition. In addition, separated men, for instance, may be more likely to drop out of the panel. Thus, some of the country differences may be attributed to the different types of data that we are using for both countries.

### 15.5.2 Method and Variables

Following the approach in Thomson et al. (2014) and Lappegård and Rønsen (2013), we considered the risk of having a child with a new partner as a competing event to the risk of having a child with the parent of the previous child. Thus, in the models, we distinguished two outcomes:

- Having a child with the parent of the previous child (referred to as "same partner")
- Having a child with a partner who is not the parent of the previous child (referred to as "different partner" or "several partners")

We studied second and third births, meaning that the individuals can enter the sample twice. We excluded fourth and higher order births because they are infrequent in our focal countries. The baseline hazard was modelled as a piecewiseconstant function (Blossfeld et al. 2007). The process time started at the birth of the previous child and was censored at the latest after 13 years. The results are presented as hazard ratios.

There has been some discussion in the literature over whether and how to account for partnership history in the investigations of multipartner fertility (see e.g. Thomson et al. 2014: 494). On the one hand, it seems important to account for the partnership situation because men and women who have entered a stable partnership are much more likely than single individuals to have children. On the other hand, the partnership situation and in particular family status may be endogenous to the birth of a child with a new partner. Those who were unmarried at the previous birth may be more likely to have a child with a new partner because unmarried persons are more likely to dissolve a union. As the goal of our investigation was to provide clear-cut estimates that are not conflated by potential endogeneity of the control variables, we did not control for past or current partnership status. A drawback of this approach is, however, that we disregard re-partnering behaviour, which definitely is an important factor in fully understanding gender differences in postseparation fertility behaviour.

The regression models used time since previous birth as a baseline hazard. We distinguished $0-1$ years, 2-3 years, 4-7 years and 8-13 years after previous birth. We also included the parity of the parent and distinguished between persons with one and two children. Education was measured as a time constant (highest ever) and ordinal scaled variable that distinguished low (ISCED 1-2), medium (ISCED 3-4) and high (ISCED 5-6) education levels. Age at first birth was collapsed in three categories ( $-22,22-29$, and $30+$ years). We also included a dummy variable indicating whether the person was born in the respective country or outside it. The
models either included an indicator for gender or are fitted separately for men and women. We observed 14,634 births in the Finnish sample, 2415 births in the West German and 928 births in the East German sample. Note that the number of events in the descriptive statistics and the regression analysis varied slightly because the multivariate analysis censored the cases after 13 years. In the descriptive analysis, events at longer durations were retained.

In the first step of the analysis, we provided descriptive measures on the prevalence of multipartner fertility. We presented the total number of children, differentiating according to whether the children had the same or different parents. The next step was the competing risks analysis. We first fitted models to study gender differences in multipartner fertility. We then explored how birth risks differed by birth order and time since the previous birth. The final step included competing risk models by gender which included the abovementioned socio-demographic covariates (education, age at first birth, time since previous birth, and country of origin).

### 15.6 Results

### 15.6.1 Descriptive Findings

Table 15.1 shows the percentage distributions of women and men by the number of children as well as the prevalence of multipartner fertility among fathers and mothers with two and three children. In the East and West German samples, the mean number of children for women is 1.5 and in the Finnish one it is 1.8 , closely corresponding to the previously reported levels of completed fertility for these cohorts at age 40 (Human Fertility Database 2018; Jalovaara et al. 2018). The table furthermore shows that there are notable differences in the parity distribution across the three societies. Childlessness levels are highest in West Germany, whereas the proportion of men and women with three or more children is largest in Finland. We also observe clear differences across the societies in the prevalence of multipartner fertility: The levels are by far the highest in East Germany and lowest in West Germany, with Finland in between. For instance, in West Germany, $12 \%$ of mothers of two children had the children with different fathers, compared to $23 \%$ in East Germany and $14 \%$ in Finland. For women with three children, the shares are higher. Among West German three-child mothers, $25 \%$ did not have all their children with the same partner. In East Germany, the percentage is $39 \%$ and in Finland 29\%.

Table 15.2 provides information on the socio-demographic characteristics linked to multipartner fertility. The table includes all parents who had two or three children and distinguishes between whether all children were with the same partner (column "same partner") or whether they were from different partners (column "several partners"). The distributions are very consistent across the three societies. Low educated persons, women, persons who had their first child under age 22, and parents with three rather than just two children are overrepresented among those who had

Table 15.1 Parity distribution and prevalence of multipartner fertility, in \%; men and women in East Germany, West Germany and Finland

|  | West Germany |  | East Germany |  | Finland |  |
| :--- | :---: | :---: | ---: | ---: | ---: | ---: |
|  | Men | Women | Men | Women | Men | Women |
| Mean number of children | 1.3 | 1.5 | 1.2 | 1.5 | 1.6 | 1.8 |
| Mean age at censoring | 40.3 | 40.5 | 41.2 | 41.3 | 42.0 | 42.0 |
| N | 1453 | 1797 | 1453 | 1797 | 10,559 | 10,222 |
| Childless, \% | 36 | 26 | 31 | 19 | 31 | 22 |
| One child, \% | 19 | 19 | 28 | 30 | 16 | 16 |
| Two children, \% | 30 | 35 | 29 | 37 | 31 | 35 |
| Three children, \% | 11 | 16 | 7 | 10 | 16 | 18 |
| Four or more children, \% | 3 | 4 | 4 | 3 | 7 | 9 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 |
| N | 1454 | 1795 | 716 | 756 | 10,559 | 10,222 |
| Persons with two children |  |  |  |  |  |  |
| Same partner, \% | 92 | 88 | 87 | 77 | 89 | 86 |
| Several partners, \% | 8 | 12 | 13 | 23 | 11 | 14 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 |
| N | 489 | 713 | 240 | 303 | 3270 | 3529 |
| Persons with three children |  |  |  |  |  |  |
| Same partner, \% | 86 | 75 | 57 | 61 | 76 | 71 |
| Several partners, \% | 14 | 25 | 43 | 39 | 24 | 29 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 |
| N | 180 | 313 | 60 | 89 | 1638 | 1877 |

children with more than one partner. Conversely, the highly educated, men, persons who had their first child at age 30 or above, and parents with two rather than three children are overrepresented among those who had their children with the same partner.

The descriptive analysis of Tables 15.1 and 15.2 suffers from censoring. The average age at censoring is around age 41 in the German sample and age 42 in the Finnish one (see Table 15.1). In all three societies, childbearing beyond that age is rare. However, it is more likely for men than for women to have children beyond that age. To assess the share of births that are missed due to early censoring, we conducted a supplementary analysis. We used Finnish data to examine the genderspecific age distributions of births with the same and different partners in somewhat older cohorts, born between 1955-64, that can be followed until ages 48-57. While the levels of multipartner fertility may be somewhat lower in the older cohorts than the recent ones, the age distribution of births can be assumed to be similar. The results are displayed in Figs. 15.2 and 15.3 in the Appendix. The figure supports the expectation that men have greater chances of having children beyond age 41, which particularly pertains to third children with new partners. As a result, the simple descriptive statistics as displayed in Tables 15.1 and 15.2 give first insights into differences in multipartner fertility across the three societies, but do not provide highly reliable information to examine gender differences in multipartner fertility.

Table 15.2 Characteristics of parents by whether they had children with the same or several partners; parents with two or three children

|  | West Germany |  |  | East Germany |  | Finland |
| :--- | :---: | :--- | :---: | :---: | :---: | :---: |
|  | Same <br> partner | Several <br> partners | Same <br> partner | Several <br> partners | Same <br> partner | Several <br> partners |
| Low education | 10 | 16 | 4 | 3 | 10 | 20 |
| Medium <br> education | 53 | 57 | 53 | 66 | 38 | 43 |
| High education | 38 | 27 | 42 | 31 | 52 | 37 |
| Male | 47 | 34 | 49 | 38 | 49 | 42 |
| Female | 53 | 66 | 51 | 62 | 51 | 58 |
| Native born | 76 | 78 | 92 | 97 | 93 | 90 |
| Foreign born | 24 | 22 | 8 | 3 | 7 | 10 |
| First birth under <br> age 22 | 10 | 31 | 12 | 40 | 7 | 26 |
| First birth age <br> $22-29$ | 36 | 42 | 38 | 43 | 56 | 57 |
| First birth age <br> $30+$ | 54 | 27 | 50 | 17 | 37 | 17 |
| Parity 2 | 73 | 28 | 84 | 49 | 70 | 49 |
| Parity 3 | 27 | 72 | 16 | 51 | 30 | 51 |
| Total, \% | 100 | 100 | 100 | 100 | 100 | 100 |
| N | 1459 | 236 | 528 | 164 | 8511 | 1803 |

### 15.6.2 Regression Results

Table 15.3 shows results from an event history model that accounts for censoring. The outcomes are the risks of having a second or third child with the same partner as the previous one vs. a new partner. The model only includes the age since previous birth (baseline), gender and parity. The main observation is that women have children with new partners at a higher rate than men in West Germany and Finland (Table 15.3). For East Germany, the gender difference is small and not statistically significant. Compared to second births, third ones are more likely to be births with a new partner. Finally, the shape of the baseline hazard differs between the two outcomes. The risk of having a child with the same partner is at its highest at relatively early intervals ( $2-3$ years since previous birth). The risk of having a child with a new partner is, however, at its highest at longer intervals (at 4-6 years in West Germany, and 7-13 years in East Germany and Finland). The difference in baseline hazards is very plausible, given that in most cases, having a child with a new partner is preceded by processes of separation from a previous partner, and possibly an entry into a new co-residential union.

The next question that we address is whether the baseline hazards for multipartner fertility vary by gender and societal context. Figure 15.1 shows the durationspecific hazards of having a child with a new partner, separately for men and women, for second and third parity, and for West Germany and Finland. The low numbers of

Table 15.3 Relative risk of having a second or third child with the same partner and a new partner, results from piecewise exponential models

|  | West Germany |  |  | East Germany |  | Finland |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Same <br> partner | New <br> partner | Same <br> partner | New <br> partner | Same <br> partner | New <br> partner |
| Age previous child <br> $0-1$ | $0.33 * * *$ | $0.27 * * *$ | $0.43 * * *$ | $0.26 * * *$ | $0.39 * * *$ | $0.35 * * *$ |
| Age previous child <br> $2-3$ | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| Age previous child <br> $4-6$ | $0.49 * * *$ | $1.43 * * *$ | $0.67 * * *$ | $2.05 * * *$ | $0.48 * * *$ | $1.48 * * *$ |
| Age previous child <br> $7-13$ | $0.17 * * *$ | 1.09 | $0.29 * * *$ | $2.26 * * *$ | $0.20 * * *$ | $2.88 * * *$ |
| Male | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| Female | 0.94 | $1.38 * *$ | 0.92 | 1.15 | 1.03 | $1.28 * * *$ |
| Second birth | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| Third birth | $0.36 * * *$ | $0.35 * * *$ | $0.41 * * *$ | $0.35 * * *$ | $0.38 * * *$ | $0.37 * * *$ |
| Person-months | 292,538 | 292,538 | 160,344 | 160,344 | $1,312,371$ | $1,312,371$ |
| Subjects | 4311 | 4311 | 1064 | 1064 | 14,027 | 14,027 |
| Events | 2120 | 295 | 741 | 187 | 14,609 | 2408 |

Note: $* p<0.1 ; * * p<0.05 ; * * * p<0.01$
observations did not allow us to study the patterns in East Germany. The results for second births suggest a gender difference in the shape of the baseline. For women, the rate increases rapidly, is at its highest 4-6 years after first birth and then decreases (Germany) or stabilizes (Finland). For men, the increase is slower; this is particularly clear for Finland, where the rate is highest in the last interval ( $7-13$ years). The results suggest that some of the gender differences in the birth rates may be tempo effects, with women accelerating the transition to the next birth after separation.

Next, we examined how education, migration background and age at first birth are associated with the chances of having children with different partners. We modelled the risks of having a (second or third) birth with the same and the new partner separately for men and women. We could have estimated a joint model for both sexes and could have controlled for gender, as in the analysis above (see Table 15.3). Including gender and age at first birth in one model seemed inappropriate, however, as age at first birth varies by gender. Age at first birth would explain much of the differences by gender, and the substantive meaning of the results would be limited.

The results are shown in Tables 15.4 a (men) and 15.4 b (women). The regression analyses are in line with the previous descriptive statistics. They show for all three societies that foreign-born persons are less likely than native-born persons to have a child with a new partner. They also suggest that low age at first birth is a strong predictor of multipartner fertility. Women and men who were under age 22 when they had their first children are much more likely than other women and men to have children with different partners. Results for education are more inconsistent. For


Fig. 15.1 Duration specific rates of having second and third birth with a new partner from a hazard rate model that only includes the baseline (duration since last birth)

Finland, the educational gradient is in line with prior findings for the US. While a positive educational gradient is found for births with the same partner, a negative gradient exists for multipartner fertility. For Germany, the pattern is rather irregular. This particularly pertains to the case of East Germany. Part of this irregularity can be attributed to the small sample size. In addition, the East Germans born around 1970 are rather homogenous in terms of its educational attainment. The overwhelming majority of this cohort had a vocational degree, and only very few and selective respondents of this cohort had only a low level of education.

### 15.7 Conclusions

This study investigated the transitions to second and third childbirth in East Germany, West Germany and Finland, focusing on societal and gender differences in the timing and probability of having children with more than just one partner. The analysis adopted a competing risk approach, focusing on fertility in recent cohorts born around 1970, following them until around age 41 . We found large differences

Table 15.4a Relative risk of having a second or third child with the same partner and a new partner, results from piecewise exponential models, men

|  | West Germany |  | East Germany |  | Finland |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Same partner | New partner | Same partner | New partner | Same partner | New partner |
| Age previous child 0-1 | 0.31*** | 0.40*** | 0.37*** | 0.10*** | 0.38*** | 0.32*** |
| Age previous child $2-3$ | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| Age previous child 4-6 | 0.47*** | 1.27 | 0.68*** | 1.03 | 0.51*** | $1.35 * * *$ |
| Age previous child 7-13 | 0.19*** | 1.12 | 0.25*** | 1.61 | 0.20*** | 2.70 *** |
| Second birth | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| Third birth | 0.35*** | 0.38*** | 0.38*** | 0.51** | 0.35*** | 0.34*** |
| Low education | 0.98 | 0.71 | 2.60*** | 1.03 | 0.88*** | 1.26** |
| Medium education | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| High education | 1.15* | 1.30 | 1.68*** | 1.01 | 1.15*** | 0.94 |
| First birth under age 22 | 0.82 | 2.12** | 0.66* | 2.73 *** | 1.15** | 2.13*** |
| First birth age 22-29 | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| First birth age 30+ | 1.06 | 0.92 | 0.97 | 0.40*** | 0.59*** | 0.38*** |
| Native born | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| Foreign born | 1.20** | 1.05 | 1.53* | 0.73 | 0.92 | 0.78* |
| Person-months | 108,515 | 108,515 | 66,863 | 66,863 | 633,112 | 633,112 |
| Subjects | 1715 | 1715 | 852 | 852 | 6788 | 6788 |
| Events | 852 | 89 | 333 | 71 | 6987 | 1012 |

Note: $* p<0.1 ; * * p<0.05 ; * * * p<0.01$
in levels of multipartner fertility across the three societies. The levels of multipartner fertility were clearly highest in East Germany and lowest in West Germany. This attests to the persisting heterogeneity in family demographic behaviour within Germany. The differences between East and West Germany are in line with previous studies (Henz 2002; Thomson 2004) and also consistent with our expectation that in West Germany, heavy demands on financial support to ex-spouses (often ex-wives) after divorce, together with low proportions of nonmarital childbearing, would discourage men from having further children with new partners after union dissolution (see hypothesis 2). However, we also found gender differences in Finland, albeit on a smaller scale, despite the fact that there are only limited financial obligations between former spouses and partners. The obligations are limited to sharing responsibility for the maintenance of common children, and claims for spousal maintenance are rare exceptions.

We also examined how standard socio-demographic characteristics correlate with multipartner fertility. There are only few studies on how migration background affects multipartner fertility. Most of the US studies have focused on ethnicity and

Table 15.4b Relative risk of having a second or third child with the same partner and a new partner, results from piecewise exponential models, women

|  | West Germany |  | East Germany |  | Finland |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Same partner | New partner | Same partner | New partner | Same partner | New partner |
| Age previous child 0-1 | 0.34*** | 0.22*** | 0.48*** | 0.46 | 0.37*** | 0.35*** |
| Age previous child $2-3$ | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| Age previous child 4-6 | 0.51*** | 1.46** | $0.68 * * *$ | 3.15 | 0.50*** | $1.75 * * *$ |
| Age previous child 7-13 | 0.16*** | 0.94 | $0.33 * * *$ | 2.57 | $0.21 * * *$ | $3.24 * * *$ |
| Second birth | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| Third birth | 0.35*** | 0.30*** | 0.39*** | 0.23*** | 0.35*** | 0.32*** |
| Low education | 1.12 | 1.29 | 1.41 | 1.01 | 0.88** | $1.28 * * *$ |
| Medium education | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| High education | 1.18** | 1.16 | 1.37*** | 1.00 | 1.03 | 0.81*** |
| First birth under age 22 | 1.03 | 1.37* | 1.17 | 2.66*** | 1.05 | $2.04 * * *$ |
| First birth age 22-29 | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| First birth age 30+ | 0.84*** | 0.29*** | 0.83 | 0.50** | 0.50 *** | 0.23*** |
| Native born | Ref. | Ref. | Ref. | Ref. | Ref. | Ref. |
| Foreign born | 0.98 | 0.59*** | 1.04 | 0.51 | 0.81*** | 0.70*** |
| Person-months | 184,023 | 184,023 | 93,481 | 93,481 | 679,259 | 679,259 |
| Subjects | 2596 | 2596 | 1064 | 1064 | 7239 | 7239 |
| Events | 1281 | 206 | 408 | 116 | 7622 | 1396 |

Note: $* p<0.1 ; * * p<0.05 ; * * * p<0.01$
showed elevated multipartner fertility among black minorities (e.g., Carlson and Furstenberg 2006; Guzzo and Furstenberg 2007a, b). Our results rather suggest that foreign-born men and women in Germany and Finland were less likely to have children with different partners. In line with previous studies, we show that early first childbearing increased the risks of multipartner fertility. The effect of age at first birth and migration background was consistent across the different societies. However, the effect of education was more irregular. It was only for Finland that we found support for hypothesis 3 claiming that low education and multipartner fertility were strongly correlated. This is in line with previous findings from other countries (e.g., Thomson et al. 2014). For Germany, the pattern was more irregular showing no clear association between education and multipartner fertility. It is possible that the country differences pertain to educational differences in separation behaviour. While a strong educational gradient in separation and divorce exists for Finland, there is not such a strong gradient for Germany.

An important finding from our analysis is that the second birth schedule of men and women differed for those who had children across different partnerships. Supporting hypothesis 1 , the results suggest that overall the rate of having a second or third child with a new partner was higher for women than for men, particularly when the first child was still young. This is surprising in light of studies showing that mothers have a lower chance of re-partnering after separation and divorce than fathers (Ivanova et al. 2013). Against this background, one could expect that they were also at a disadvantage when it came to having a second or third child after separation. Our study suggests that this is not the case. There are forces that may encourage women with young children to more rapidly progress to the next child after separation. First, they may be more aware than men of their limitations of having further children as they age. Second, the great majority of young children reside with their mothers after separation. On the one hand, young children inhibit the possibilities to search for a new partner. On the other hand, the desire to provide a sibling to the firstborn child may be stronger for women than for men. Whatever the right interpretation may be, it means that the fertility schedule of women and men diverges after separation. This is an interesting finding for life course researchers who focus on gendered life course patterns (Beaujouan and Solaz 2012). However, it is also of general interest for demographers suggesting that vital statistics data, which are usually collected for females, may provide a one-sided picture of birth patterns in a society. Our study thus supports prior calls for the collection of male fertility data in vital statistics.

There several caveats that may limit the generalization of our results. Firstly, data were censored at age 41 . Childbearing beyond that age is rare. Nevertheless, women and men encounter different probabilities of having children beyond age 41, in particular when they have children with several partners. The gender differences that we present in the descriptive statistics are affected by that limitation and should be interpreted with caution. The event history model accounts for censoring, but the model relies on the proportionality assumption which likely is violated, as women accelerate childbearing after union breakup. A strength of our paper is that we compare behaviour in two contrasting welfare regimes and three societies. Our overall conclusion is that ex-spousal support may have inhibited West German divorced men from having further children in a new partnership. Obviously, this is a very strong conclusion based on a comparison of two countries. We leave it to future research and call for studies that include further countries into the investigation that better highlight the potentially important role of the policy context for postseparation behaviour.

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## Appendix



Fig. 15.2 Age distributions (\%) of second and third births with same and new partner by 2012, Finland, men born 1955-64


Fig. 15.3 Age distributions (\%) of second and third births with same and new partner by 2012, Finland, women born 1955-64

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# Chapter 16 <br> Post-Divorce Dual-Household Living Arrangements and Adolescent Wellbeing 

Peter Fallesen and Michael Gähler


#### Abstract

Adolescents are increasingly living in two households, alternating between family contexts. It is timely to consider how these contexts may affect adolescent's psychological wellbeing. We use data from the Children of Immigrants Longitudinal Survey in Four European Countries (CILS4EU), England, Germany, the Netherlands, and Sweden, including data on occurrence and extent of dualhousehold residency, to correlate 15 family types with adolescent's internalizing problems, self-esteem, and life satisfaction. Analyses show that (i) adolescents in intact families exhibit better wellbeing than peers in different types of dissolved families, (ii) adolescents in reconstituted families exhibit less wellbeing than adolescents living with a single parent only, (iii) living in two households, where both parents are single or either of them is repartnered, is not associated with better wellbeing than living with a single parent only, (iv) adolescents in alternate living generally seem to do as well as their peers in intact families, but (v) there is a tendency that alternate living in a symmetrical family context, i.e., where both parents are either single or living with a new partner, is more positive for the adolescent than if one parent is in a new relationship and the other is not.


Keywords Adolescence • Country comparison • Family complexity • Living arrangements • Psychological wellbeing

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### 16.1 Introduction

Following the Second Demographic Transition, European societies face high prevalence of divorce, changing rates of repartnering, and an increased prevalence of post-divorce paternal involvement, shared living arrangements, and shared custody (Amato 2000, 2010; Amato and James 2010; Bernardi et al. 2013; Cancian et al. 2014; Gähler and Palmtag 2015; Kitterød and Lyngstad 2014; Ottosen and Stage 2012; Spruijt and Duindam 2009). The family constellations that children and adolescents live in have grown ever-more complex. Experiencing parental union dissolution and growing up in a complex family may take emotional toll on adolescents trying to navigate multifaceted feelings towards their parents. At the same time, dissolved households often have fewer financial resources and parents face more stringent time constraints, leaving less time and money to invest in their adolescents. Yet, all dissolved household are not necessarily cut from the same cloth. Categories such as single-parent households and reconstituted family households may hide large underlying differences between children who may reside in two homes, with complex combinations of household structures. Failing to account for such differences in living arrangements may obscure important differences in child wellbeing. Yet, when studying how adolescents fare outside a two-biological-parent setting, family scholars have often used parsimonious categories that only differentiate between intact households and one or a couple of alternatives: e.g., singleparent families and reconstituted, or step-, families.

The main barrier to improve our knowledge on how adolescents fare when their parents do not live together has been the lack of good data on complex families. We seldom have information on whether, and to what extent, an adolescent resides in two households. Further, in the rare occasions when these data are available, the structure of both households often remains unknown. This lack of knowledge is unfortunate, because residence arrangements following parental divorce may have substantial bearing on children and adolescents' wellbeing (e.g., Bastaits et al. 2018; Fransson et al. 2016; Poortman 2018) as well as successful transition to adulthood (see Andersen 2017 for review). For example, does living with a single parent in only one household mean the same to adolescents as living with a single parent in one household and a parent in a reconstituted family in another household? Do adolescents in alternate living, i.e., living equally much with both parents in separate households with two single parents, have similar wellbeing as adolescents whose parents both live with new partners?

To address this gap in the literature, our analyses use detailed information on the occurrence and extent of adolescents' multiple household residency. Based on data from the Children of Immigrant Longitudinal Study from Four European Countries (CILS4EU) (see below), we define 15 family categories conditioned on both parents' living arrangements (when applicable). Wave 1 of the CILS4EU data includes information on adolescents' psychological wellbeing and both biological/adoptive parents' living arrangements, covering Sweden, The Netherlands, United Kingdom,
and Germany, for representative national classroom-based samples of pupils aged around 14.

Three out of ten adolescents in our analytical dataset do not reside with both their biological parents. Most of those who have experienced a parental separation or divorce still live in only one household, mostly with a single or repartnered mother, but a substantial proportion lives in two households and here alternatives and combinations are many, e.g., two single parents, two repartnered parents, or one of each. To an increasing extent, adolescents live equally much in these households, i.e., there is no longer a main household to which the adolescent belongs. Measures of internalizing problems, self-esteem, and life satisfaction allow us to provide a detailed picture of the relationship between living arrangements and adolescent's wellbeing.

The chapter offers three main contributions to the literature on living arrangements and adolescents' wellbeing. First, by using a more detailed typology of family types, we document the prevalence of 15 different forms of living arrangements across four European countries. Second, we provide descriptive evidence on systematic differences in adolescent wellbeing across the forms of living arrangements. Third, we examine whether, and to what extent, mediating contextual factors and family characteristics can account for initial differences, and show that after controlling for these characteristics, salient differences in adolescent wellbeing remain across living arrangements.

### 16.2 Background

Following the Second Demographic Transition in the developed world, people deferred marriages, cohabitated, had fewer kids later, and broke up more (Lesthaeghe 2010; Van de Kaa 1987). Multiple partner fertility increased the share of children growing up with step-parents and step-siblings (Gähler and Palmtag 2015). Across the period, how children and parents affect each other's lives has changed. Fathers increased involvement and custody and living arrangements where children spend equal amount of time with both parents (alternate living) became common (e.g., Cancian et al. 2014; Kitterød and Lyngstad 2014; Ottosen and Stage 2012; Spruijt and Duindam 2009). Consequently, single-mother families are no longer the default state for children growing up in non-traditional families (Amato 2000, 2010; Amato and James 2010; Bernardi et al. 2013). These children experience multiple family constellations and often live part-time in two parallel family structures. Yet, despite the increase in family complexity, the literature on family heterogeneity struggles with incorporating these changes. Notably, empirical studies of children living in non-traditional households tend to describe only one resident household, thereby not capturing the dual context that increasingly defines many childhoods.

Previous studies consistently show that children from non-intact families are disadvantaged on a variety of outcomes (e.g., Amato 2010), including emotional and psychological wellbeing (e.g., Amato and Sobolewski 2001; Barrett and Turner

2005; Mitchell et al. 2015; Sun and Li 2002), with recent work suggesting that children in single custody households are worse off compared to children who spend equal time with both parents (see Baude et al. 2016; Bauserman 2002; Nielsen 2014 for recent meta-reviews finding weak support). These analyses commonly use simple dichotomies, e.g., intact family versus parental divorce, single parent versus reconstituted family, or alternate living versus sole custody parents, although children of separated or never married parents face an increasing array of family circumstances. One of the most prevalent trends in current family life is that children to an increasing extent move between two households, with varying family compositions. Yet, current knowledge is almost entirely based on information from only one of these households, or on shared living arrangements without including composition of the dual set of involved households (e.g., Fransson et al. 2016; Turunen 2017; see Baude, Pearson and Drapeau 2016 for a recent review). Thus, how this family complexity, and how interactions between dual, and simultaneous, family types, relate to children's wellbeing remains understudied. Recent work has emphasized the need for a better and deeper understanding of how family complexity and heterogeneity, across ethnic groups and socio-economic strata, moderate the impact of parental separation on children's wellbeing and life chances (Amato 2000, 2010; Amato and James 2010; Bernardi et al. 2013; Grätz 2017). Our analyses in the present chapter adds to the ongoing discussion by showing how child wellbeing varies across dual-household family types.

### 16.2.1 Parental Divorce and Adolescent Wellbeing

Why do children and adolescents from non-intact families on average report lower levels of wellbeing, here defined as a positive view on the self and the absence of internalizing problem behavior? The literature suggests two explanations. First, the emotional turmoil following a divorce may impact children negatively. Children and youth often react to divorce with shock if the divorce is unexpected, anger because the parents no longer live together, grief over the missing family, and regret at the loss of a parent (Öberg and Öberg 1991). Household disruption theory suggests that children may feel abandoned, worry about the future, and blame themselves for the divorce (Hetherington 1979; Pryor and Rodgers 2001; Rutter 1979). Lower wellbeing accompanies such post-divorce uncertainty (Hetherington 1992). Further, children who experience parental divorce have elevated stress-levels, which also may directly lower wellbeing (Evans and Kim 2007).

Second, many children and youth lose resources from parental divorce and from living in a single parent family. Economic conditions often deteriorate for parents following family dissolution (Andre $\beta$ et al. 2006), and the increase in family constellations including other than two biological parents with common children have increasingly become concentrated among the less privileged (Gähler and Palmtag 2015; Härkönen 2017), i.e., parents with lower education, class position, and income. The economic and material disadvantage and/or loss is associated with
lower psychological wellbeing in children (Gähler and Garriga 2013). Moreover, because single parents are sole breadwinners and caretakers of the household, they may have less time to spend with their children (e.g, Gibson-Davis 2008), which could also affect wellbeing negatively (Del Bono et al. 2016; Milkie et al. 2015). From a resource perspective, divorce may cause parents to have fewer financial and personal resources to invest in children and youth, which in turn lowers wellbeing.

### 16.2.2 Dual-Household Living Arrangements and Wellbeing

These above stated explanations describe how children's wellbeing differ across intact and non-intact families. Yet, what could we expect from different post-divorce living arrangements? For example, how does family reconstitution affect children? On the one hand, step-parents may add resources to the child's household (Erola and Jalovaara 2017), such as income and help with household tasks. On the other hand, the relation between the step-parent and the child is sometimes problematic (e.g., Mitchell et al. 2015), characterized by tension and rivalry about the child's biological parent. In accordance with this more pessimistic view, most studies show that step-parents cannot compensate for biological parents. Instead, children in stepfamilies have lower wellbeing than children in intact families and sometimes also than children in single parent families (see Coleman et al. 2000; Sweeney 2010 for literature reviews).

During the last decades, alternate living and shared physical custody, where parents have equal rights and children live (almost) equally with both parents, has become increasingly popular in many countries. In these living arrangements, children and youth keep a continuous and close relationship with both parents. Closeness to parents following dissolution can be beneficial for adolescents, (e.g., Booth et al. 2010), who otherwise may miss out of bonding with the noncustodial parent who often is the father (King and Sobolewski 2006). Yet, the child or adolescent also constantly moves between two households, which may be burdensome. Nevertheless, empirical studies show that children with alternate living generally exhibit a higher emotional and psychological wellbeing than children mainly living with a single parent (Nielsen 2014), up to the level of children whose parents remain together (Fransson et al. 2016; Turunen 2017). To some extent this may be because alternate living arrangements are more common among privileged socio-economic groups and because these parents are often better able to cooperate well (Fritzell and Gähler 2017), but even after controlling for income and parental conflict, children seem to be better off in this living arrangement (Nielsen 2014). In a recent meta-analysis, Baude et al. (2016) show that children's wellbeing improves more the closer to $50-50$ the child's division of time between the two households comes, and they find a positive association with behavioral and social adjustment but not with emotional adjustment. To our knowledge, however, no previous study on alternate living arrangements has accounted for the heterogeneity in family structure in the child's
two households, i.e. whether the parents are single or if one, or both, has initiated a new union partnership.

One reason to study the role of union heterogeneity is that parents' union status (a)symmetry may impact on children's wellbeing, either conditional on or independent of alternate living. Family systems perspective (Hetherington 1992) and the ecology of human development perspective (Bronfenbrenner 1979) both suggest that when parents are not thriving, it affects children too. The symmetrical situation where both parents are single or live in a union may reflect situations where both parents are either satisfied or not actively resenting the other. Asymmetry, where one parent has repartnered while the other remains single may reflect situations more prone to animosity (for example, if a divorce was unilateral because the spouse responsible for terminating the marriage had found a new partner). Thus, symmetric situations are likely easier to handle for the child than an asymmetrical situation where one parent remains single and the other has moved on to a new relationship. These are all dimensions of how living in a non-intact family relates to adolescent wellbeing that we empirically study in this chapter.

Based on the arguments developed above, we expect adolescents in all non-intact dual-household contexts to have lower wellbeing than their peers in intact families. We expect, however, adolescents in alternate living arrangements, symmetrical dual-households in particular, to differ less from intact families than do adolescents with single household living arrangements and whose parents have different types of households. We generally expect family symmetry to trump asymmetry for adolescent's wellbeing. Moreover, we expect the wellbeing of adolescents in reconstituted families to be on par with, or lower than, the wellbeing for adolescents in single parent families. Finally, based on the notion that frequent interaction with both parents following family dissolution is beneficial for the adolescent, we expect living in dual households to be associated with higher wellbeing for adolescents than only living with one parent in one household.

### 16.3 Country Contexts

Our dataset includes four Western European countries, including both countries with a long tradition of easy-access divorce laws (Sweden) and countries with more litigative approaches to divorce (Germany, the UK). In terms of adolescents' risk of ever experiencing parental union separation, the countries covered represent varying extent of children born in unions who can expect to have their parents not residing together at age 15 (Andersson et al. 2017). A dual-household multi-country perspective has so far been absent from the literature, leaving it unclear how well national studies generalize to an international context. Residential complexity could differ across national contexts (cf., Sobotka 2008), not only because of variation in family demography and family law but also because of family policy and social stigma (cf., Amato and James 2010; Dronkers and Härkönen 2008). The primary reason to include multiple countries here is to pool data and reach a sufficient
number of cases to be able to perform detailed analyses of complex and less common family types. A secondary reason, however, is to explore whether variations in wellbeing across nontraditional dual-household family types are country specific, or more general for at least Western Europe. Our results show some heterogeneity, but in broad terms the relationship between living arrangements and adolescent wellbeing appears rather similar across countries. It is not within the scope of this chapter to formally test all possible interactions between family type and country.

### 16.4 Data

We use data from the Children of Immigrants Longitudinal Survey in Four European Countries (CILS4EU), funded by New Opportunities for Research Funding Agency Co-operation in Europe (NORFACE) (Kalter et al. 2014). The overarching goal of the CILS4EU project is to focus on second generation integration. To achieve this goal, a two-step cluster sampling procedure was adopted. First, schools in the four countries were selected, over-sampling schools with a high proportion of immigrant youth, then all pupils in around two classes within each school were invited to participate in the study. In total, 958 school classes in 480 schools participated and the individual pupil participation rate within school classes was generally high but varied between countries (England: 80.5\%, Germany: 80.9, Sweden: 86.1, and the Netherlands: 91.1\%). During lesson time in the school year 2010/2011, a total number of 18,716 Dutch ( $n=4363$ ), English ( $n=4315$ ), German ( $n=5013$ ), and Swedish ( $\mathrm{n}=5025$ ) pupils, aged around 14 , answered a $45-\mathrm{min}$ self-completion questionnaire on, e.g., family context, educational achievement and aspiration, relations to parents, feelings, attitudes, and beliefs, health, and leisure time activities. The project has a longitudinal design, i.e., pupils were followed over time via repeated questionnaires the following school years, but we only use data from wave 1. ${ }^{1}$ Survey data are available at www.gesis.org (ZA5353 data file).

### 16.4.1 Adolescents in Dual-Household Families

Whereas previously many children lived entirely with one parent (the mother) and spent little (if any) time in the other parent's household following parental divorce or separation, many children today spend a substantial amount of time in both households. An increasing share spends equal time living with their mother and their father (alternate living). The CILS4EU questionnaire acknowledges this new situation by asking the respondent whether s/he lives with both biological parents in

[^51]one home and, if not, the reason for this. Respondents are also asked who lives in the household (e.g. biological, step-, foster parent, siblings, grandparents, other family members). A unique feature of these data is that they include information on the family context for two households, i.e., pupils are asked whether they live in another home on a regular basis and, if so, how much of the time they live there and who lives there. Based on this information, we are able to identify 15 family categories derived directly from the survey categories: intact family (i), single mother (ii), single father (iii), repartnered mother (iv), and repartnered father (v) (family type $i-\mathrm{v}$ : respondent living in only one household), single mother and single father (vi), single mother and repartnered father (vii), repartnered mother and single father (viii), repartnered mother and repartnered father (ix) (family type vi-ix: respondent living in two households but not alternate living), alternate living: single mother and single father ( x ), alternate living: single mother and repartnered father (xi), alternate living: single father and repartnered mother (xii), alternate living: repartnered mother and repartnered father (xiii) (family type x-xiii: alternate living is defined as living "about half the time" in the second home), foster family (xiv), and other (xv) (e.g., adolescents who have experienced a parental divorce or separation and live alone or with others, not including biological, step- or foster parents) (see Table 16.1 for overview). We excluded three groups of respondents. First, 376 respondents in one German federal state were not asked any specific questions on household members. Second, 936 respondents who have not experienced parental divorce or separation and live alone or with others, not including biological, step- or foster parents.

Table 16.1 Distribution of family types by country (unweighted percentages), based on 14-year olds who either live with both their biological parents or live in non-intact families because their parents are divorced/separated or never lived together $(\mathrm{n}=16,304)$

|  | EN | GE | NL | SW | Total |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Two biological/adoptive parents | 68.4 | 69.8 | 75.1 | 70.2 | 70.8 |
| Single mother, no father | 12.0 | 11.6 | 7.0 | 7.9 | 9.6 |
| Single mother, single father | 2.5 | 1.8 | 2.7 | 1.8 | 2.2 |
| Single mother, Repartnered father | 1.4 | 1.2 | 1.9 | 1.3 | 1.4 |
| Single father, no mother | 1.8 | 2.1 | 1.3 | 1.6 | 1.7 |
| Repartnered mother, no father | 5.4 | 6.7 | 3.5 | 3.9 | 4.9 |
| Repartnered mother, single father | 0.9 | 0.5 | 0.8 | 0.5 | 0.7 |
| Repartnered mother, Repartnered father | 1.9 | 1.3 | 1.9 | 1.7 | 1.7 |
| Repartnered father, no mother | 0.9 | 1.6 | 0.6 | 0.9 | 1.0 |
| Alternate living: Single mother, single father | 1.0 | 0.7 | 1.2 | 3.3 | 1.6 |
| Alternate living: Single mother, Repartnered father | 0.5 | 0.6 | 0.6 | 1.6 | 0.8 |
| Alternate living: Single father, Repartnered mother | 0.5 | 0.4 | 0.5 | 1.6 | 0.8 |
| Alternate living: Repartnered mother, Repartnered father | 0.4 | 0.5 | 0.8 | 2.1 | 1.0 |
| Step-/Foster family | 0.7 | 0.5 | 0.8 | 0.7 | 0.7 |
| Other | 1.6 | 0.9 | 1.2 | 0.9 | 1.1 |
| Sum | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| N | 3849 | 4146 | 3787 | 4522 | 16,304 |

Source: Own calculations on CILS4EU data

Third, 1100 respondents who were living in non-intact families for other reasons than parental divorce or separation or because their parents had never lived together (e.g., deceased parent(s), parent(s) living/working abroad, or other reason, but also some cases with missing information on reason for living in non-intact family). In total, then, we include a maximum number of 16,304 (18,716-376-936-1100) cases in our analyses. In Table 16.1, we display the family types and how they are distributed by country.

Bearing in mind, then, that we only include respondents who either live with both their biological parents or in non-intact families because their parents are divorced/separated or never lived together, we do find a rather striking similarity between the four included countries. The overall proportion of 14 year olds living with both their biological parents is $71 \%$ and variation around this figure is small, ranging from $68 \%$ for England to $75 \%$ for the Netherlands. The most common family type for adolescents not living with both their biological parents is still living with a single mother only, around $10 \%$ in our sample, but here we find some variation between countries. Whereas this is common in England and Germany, 12\%, it is less common in the Netherlands and Sweden, $7-8 \%$. In these countries, it is instead more common that adolescents from non-intact families live in two households. This is most clearly demonstrated when studying family types where adolescents spend an equal amount of time with their mother and their father in two different households. If we add the four alternate living categories together for Sweden, we find that almost $9 \%(3.3+1.6+1.6+2.1)$, or almost every three out of ten (8.6/29.8) of all adolescents from non-intact families live in such an arrangement.

### 16.4.2 Emotional and Psychological Wellbeing

We are mainly interested in studying how family and alternate living arrangements are associated with adolescent's emotional and psychological status, and we use three indicators measuring this. First, Internalizing problems is based on four questions, "How often are each of these statements true about you?": "I feel very worried", "I feel anxious", "I feel depressed", and "I feel worthless". Responses range from "never true" (0) to "often true" (3). We use these questions to form an index, ranging from 0 to 12 , with a Cronbach's alpha of .784 . Self-esteem is measured by four indicators: "How much do you agree or disagree with each of the statements?" "I have a lot of good qualities", "I have a lot to be proud of", "I like myself just the way I am", and "I think things will go well for me in the future". Responses range from "strongly disagree" (1) to "strongly agree" (5). We use these questions to form an index, ranging from 4 to 20 , with a Cronbach's alpha of .814 . Finally, life satisfaction is measured by the question "On a scale of $1-10$ where 1 is very unsatisfied and 10 is very satisfied, how satisfied are you with your life in general?" Descriptive statistics for these variables, by country, are presented in Table 16.2. On average,

Table 16.2 Dependent variables (means) by country (unweighted)

|  | EN | GE | NL | SW | Total |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Internalizing problems | 4.8 | 4.6 | 3.9 | 3.4 | 4.2 |
| N | 3738 | 4106 | 3756 | 4317 | 15,917 |
| Self-esteem | 15.4 | 16.3 | 15.7 | 16.7 | 16.1 |
| N | 3776 | 4113 | 3750 | 4410 | 16,049 |
| Life satisfaction | 7.6 | 7.5 | 8.0 | 8.1 | 7.8 |
| N | 3777 | 4120 | 3757 | 4430 | 16,084 |

Source: Own calculations on CILS4EU data
adolescents in the four countries seem to do rather well. Their self-esteem and life satisfaction leans towards the higher end of the scale whereas the presence of internalizing problems is relatively low. English and German adolescents are slightly more likely to report internalizing problems and they express lower life satisfaction than their peers in the Netherlands and Sweden whereas German and Swedish adolescents exhibit a relatively high self-esteem. Although these intercountry differences are interesting (and often statistically significant), the implications of these differences are not within the scope of this chapter.

### 16.4.3 Control Variables

Besides providing evidence on unconditional differences in wellbeing across country and family types, we also include a series of variables to examine if differences in wellbeing are a result of child characteristics, context, and socio-economic resources rather than family type. As control variables we include survey country (dummy variables for England, Germany, the Netherlands, and Sweden), gender (boy/girl), immigrant status (four dummy variables: respondent born in survey country and both parents born in survey country (i), respondent and one parent born in survey country, one parent born in another country (ii), respondent born in survey country, both parents born in another country (iii), and respondent born in another country (iv)), parents' highest occupational status (according to the 2008 International Standard Classification of Occupations (ISCO-08) and converted into the interval-scale ISEI-08 (Ganzeboom and Treiman 1996; Ganzeboom 2010)) ${ }^{2}$, and immigrant stratum (indicator of proportion of immigrants in respondent's school: 0-9.9, 10-29.9, 30-59.9, and 60-100\%). Moreover, we control for family cohesion [summated index of five indicators, e.g. "How often is each of the following true about your home? We feel very close to each other", ranging from "always" (1) to "never" (4)], parental closeness [summated index of seven indicators, e.g. "How much do you agree or disagree with each of these statements? My parents

[^52]show me that they love me", ranging from "strongly agree" (1) to "strongly disagree" (5)], parental monitoring [summated index of three indicators, e.g. "How much do you agree or disagree with each of these statements? I always need to tell my parents exactly where I am and what I am doing when I am not at home", ranging from "strongly agree" (1) to "strongly disagree" (5)], and parental school encouragement [summated index of three indicators, e.g. "How much do you agree or disagree with each of these statements? My parents show a lot of interest in my grades and my achievement in school", ranging from "strongly agree" (1) to "strongly disagree" (5)].

### 16.5 Results

For all analyses we use OLS regression. We first present results from univariate unconditional OLS models, and then from models where we condition on the control variables discussed above. All parameter estimates are expressed as standardized coefficients expressing parameter sizes in increases in one standard deviation.

### 16.5.1 Univariate Results

The results from the unconditional analyses do indeed suggest that salient differences in child wellbeing exist across family structures. The findings are presented in Fig. 16.1 along the dashed lines. In the figure, results for the reference category, i.e., respondents in intact families, living with both their biological parents, are set to 0 . The plotted symbols show the standardized deviation from the reference category for all other family types. Let us take an example: in the first line of the left panel of Fig. 16.1, for adolescents living with a single mother in one household only, we see that adolescents in both the full sample and in all four countries separately report more internalizing problems than adolescents in intact families, but the association is insignificant for the UK. If we study the other panels, where outcomes are selfesteem and life satisfaction, we again find that respondents living with only single mothers fare less well than respondents in intact families; the former express less self-esteem and lower life satisfaction (although for self-esteem the estimate for the Netherlands is insignificant). In fact, this seems to be the case for most other family types too, regardless of outcome variable and regardless of survey country. Thus, our first conclusion aligns well with most previous research: adolescents in nonintact families generally report lower emotional and psychological wellbeing than their peers in intact families. An exception, however, is adolescents in alternate living who report levels of internalizing problems close to the reference category.


Fig. 16.1 Associations Between Wellbeing Outcomes and Living Arrangement for Full Sample and Individual Countries, Standardized Coefficients (Reference group: Two parent single household family). ©: Full Sample, $\boldsymbol{\Delta}$ : The Netherlands, $\boldsymbol{\nabla}$ : Sweden $\boldsymbol{\square}$ : The UK $\boldsymbol{\nabla}$ : Germany Notes: Black symbols significant at 5\% level. Grey symbols significant at $10 \%$ level. Hollow symbols insignificant. Dashed line indicates results from model without any controls. Full line indicates results from model with full set of controls (including country controls for full sample) Source: Own calculations on CILS4EU data

### 16.5.2 Controlling for Observable Characteristics

As we have demonstrated, adolescents' family type and living arrangements are associated with their emotional and psychological wellbeing. This is not to say, however, that we have established a causal link, i.e. that different family types and living arrangements cause variation in outcomes. Why not? There are at least two possible reasons for this. First, adolescents with a certain emotional and psychological status may select into certain family types. For example, if adolescents with emotional and psychological problems are more likely to see their parents divorce it could indicate a reversed causal order of events. In other words, family arrangements do not affect the wellbeing of adolescents, instead the wellbeing of adolescents affects which type of family they live in. Second, the association between family type and adolescent wellbeing may be spurious. A certain family type may be associated with other, observable or non-observable, characteristics, e.g., socioeconomic conditions, parental conflict, child time with parents and so on, and it may be these characteristics, rather than family type per se, that affect adolescent wellbeing. In other words, although we find an association between family type and adolescent wellbeing there may not be a causal effect. The first of these alternative possibilities, i.e., selection, we are not able to test here as we have only access to cross-sectional data, but the second alternative we can partly account for by
controlling for some potentially important observable characteristics. As mentioned, we control for adolescent's gender, survey country, immigrant status, parents' highest occupational status, immigrant stratum, family cohesion, parental closeness, parental monitoring, and parental school encouragement. The results from these analyses are presented across the full lines in Fig. 16.1. By comparing estimates from dashed and full lines, we can estimate how much of the initial differences between family types that can be explained by observable characteristics.

We find that the direction of almost all deviations from the reference category remains after adding these controls but in some instances the difference becomes statistically non-significant. For example, this is the case for the repartnered mother, no father family type regarding internalizing problems. After controlling for the background characteristics listed above, adolescents in this family type still exhibit more internalizing problems but the difference in relation to young people in intact families is no longer statistically significant. For most family types, however, and for all outcomes, the distance to the reference category diminishes after controls are added but the statistical significance remains. This suggests that the lower wellbeing among 14 years old in "alternative" family types to some extent could be explained by other factors than their living arrangements. Is the remaining difference caused by family type? Not necessarily, it could potentially be explained by other factors that we were not able to control for here and/or by selection. However, even after controlling for confounding factors, children in these family types are still doing less well in terms of wellbeing.

Adolescents in alternate living generally do well but we find some slight indications of support for an impact of symmetry: alternate living adolescents report lower levels of self-esteem and life satisfaction when their parents do not have symmetric households. Across all three outcomes, adolescents in alternate living between two single parent households report wellbeing at the same levels as peers from intact families. The same goes for alternate living with two repartnered parents, except a borderline significant negative estimate for lower life satisfaction for Dutch adolescents. Estimates for asymmetric alternate living are more dispersed, with several significant parameters, indicating that some negative impact of asymmetry may take place. In general, however, adolescents in alternate living are reporting better wellbeing than peers in other forms of dual- and single-household arrangements, even after controlling for a number of variables. For other non-intact family types, we find no indication that family type symmetry is better than asymmetry for adolescent wellbeing. Adolescents with two single or two repartnered parents do not exhibit better wellbeing than adolescents with one single and one repartnered parent.

In the univariate models, we generally find that adolescents in reconstituted families, living in only one household, exhibit less wellbeing than young males and females living with a single parent only. When we compare the results for single mother families with the results for remarried mothers, and do the corresponding comparison for father families, we find that the comparison falls to the advantage of single parent families in every case except for one, life satisfaction for mother families where we find no difference. These differences disappear, however, in the models where we add controls. More detailed analyses (not displayed) show that this is
mainly because adolescents in repartnered families exhibit lower levels of family cohesion and parental closeness.

Going from living with a single parent only, whether the mother or the father, to living in two households, where both parents are single or either or both of them is repartnered, does not seem to improve adolescent wellbeing. In fact, the opposite often seems to be the case. For example, adolescents living with a single father or mother in one household only, exhibit fewer internalizing problems and higher life esteem than adolescents living in two households with two single parents or with one single and one repartnered parent.

Finally, for inter-country variation, we need to be aware that these results are based on much smaller numbers than the aggregate and therefore less reliable. Bearing this in mind, we may tentatively conclude that the conclusions drawn for the aggregate generally seem to be valid also for each of the four countries included, i.e. country differences are for the most part small, and overall patterns are rather similar, although some variation does exist.

### 16.6 Concluding Discussion

Between the rise in divorce rates, the increase in multiple partner fertility, and the changing roles of fathers in children's lives, children and adolescents today experience a diverse range of family constellations. In this chapter, we have defined and documented the prevalence of 15 types of family compositions and shown that they offer very different circumstances for children, at least in terms of wellbeing. Some of our results align well with what has previously been known: adolescents in intact families fare better than their peers in dissolved families (e.g., Amato 2010; Bernardi et al. 2013) and family reconstitution, i.e., step-families, does not improve the adolescent's situation (e.g., Coleman et al. 2000; Sweeney 2010). If anything, it deteriorates it even further. These results indicate that the economic resources that step-parents bring to the family, and the time they potentially free for the biological parent to spend with the child is not sufficient to improve these adolescent's emotional and psychological wellbeing. Either the children are unable to utilize these (potential) resources or the positive effect of the resources are trumped by negative effects associated with family reconstitution. One such possible effect being that family cohesion and adolescent's closeness with the biological parent is weaker, potentially caused by tension and rivalry with the step-parent. Another possible explanation is that loyalty to the other parent may make adolescents less likely to engage positively with a step-parent.

A new finding from this study is that adolescents also do not seem to benefit from changing from a single parent one-household family to a dual-household living arrangement, unless it is alternate living, i.e., the adolescent spending (about) the same time in both households. It remains an open question why only balanced time
in both parents' households benefits the adolescent, but one possibility is that alternate living parents are still positively selected regarding, e.g., cooperation around the adolescent whereas this may not be the case for parents dividing the adolescent's living unequally between them. This result implies that a continuous interaction with both parents, even living with them, is not necessarily associated with an improved well-being in the child, regardless of whether these parents initiate a new relationship or not. As suggested by household disruption theory, alternate living arrangement likely occurs in families with less post-divorce conflict, which in turn likely correlates with higher levels of child wellbeing.

Finally, the conclusion that alternate living benefits the adolescent must be nuanced. Our results suggest that this is clearly the case when the two households are symmetrical, i.e., when both parents remain single or when both parents are repartnered. Under these circumstances, adolescents fare as well as their peers in intact families. When households are asymmetrical, however, we find a tendency that alternate living is not as beneficial for the adolescent, in particular if the mother is single and the father repartnered. For adolescents in other dual-household living arrangements, i.e. other than alternate living, we find no variation in well-being according to whether the households are symmetrical or asymmetrical.

Our analyses are not without limitations. First, they are based on cross-sectional data and we are unable to account for any selection. Second, although we were able to control for a number of key observables, we also miss some important controls, e.g., time since union dissolution, step-siblings, and precise time spent in each household (except for alternate living). Some reconstituted families may effectively be the result of family swapping, which could be more detrimental for the wellbeing of children from the previous relationship than a bringing-together-of-two-families type of reconstitution would be. We also lack information on financial resources and parental conflict. Still, our study is one of the first attempts to widen the scope and cover the dual-household context that is reality for so many children and adolescents today.

For future studies, another large question remains: Are the dimensions we use to understand families still adequate, or is there a need to rethink and reconsider them? We have extended on "traditional" family categories by combining two households and considering living arrangements as well. In doing so, we have added more detail by including the non-residential parent as well. Yet, we still rely on the traditional categories being a reliable measure of the experienced living conditions. For example, elements such as child's age at parents' divorce/dissolution, "family swapping" where parents focus more on their new family, age difference between focal child and half- and step-siblings, and geographical distance between parental households could all be (more) salient dimensions affecting child wellbeing above simply examining the composition of both households when children reside outside of a two-biological parents family. The inclusion and consideration of alternate living arrangements likely provides an important first step in updating our considerations on the actual family situation that children experience, yet a substantial amount of
empirical and theoretical work is needed still if we truly are to reconsider how to define dual-household living arrangements in a way that captures children's actual lived experience in an accurate way.

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# Chapter 17 <br> Floor Effects or Compensation of Social Origin? The Relation Between Divorce and Children's School Engagement According to Parents' Educational Level 

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#### Abstract

This chapter uses multi-group structural equation models to investigate how the mediators between divorce and school engagement differ according to parents' educational level. Previous studies have failed to address which processes underlie this potential moderating role of parents' educational level and have reported conflicting results. Based on the Leuven Adolescent and Family Study data ( $\mathrm{N}=7035$ ), our results show that children with lower educated parents are more negatively affected by divorce than children of highly educated parents and that this result cannot be explained by the lower availability of family resources in the group of children with lowly educated parents, whereas family resources are important mediators for children with medium and highly educated parents. Overall, the findings provide more nuanced evidence on how the experience of divorce varies between children of different socioeconomic backgrounds.


Keywords Divorce • Education • Social inequality • Structural equation models • Family relationships

### 17.1 Introduction

Divorce is becoming increasingly prevalent among the lower social classes in most Western countries and regions, including Flanders (Belgium) the focal site for this study (Härkönen and Dronkers 2006). Because there is a negative association between parental divorce and children's educational outcomes (Amato 2010),

[^53]divorce can be one of the mechanisms in the intergenerational reproduction of social inequality: children of lower educated parents are at a higher risk of experiencing parental divorce which in turn may negatively affect their future educational and socioeconomic outcomes (McLanahan 2009; McLanahan and Percheski 2008). The role of divorce in intergenerational transmission of social inequality will also be determined by any moderating effects of parents' socioeconomic background. Some studies find that the consequences of divorce are stronger for children of lower educated parents. This implies that divorce deepens existing social divides in society (McLanahan 2004). Other studies however, report that divorce affects children of higher educated parents more than children of lower educated parents (e.g. Martin 2012; Bernardi and Boertien 2016). The latter findings hint that divorce may function as an equalizer in society.

In this study, we address how and why the relation between divorce and children's educational outcomes may differ according to parents' social background. We investigate two core research questions: (1) does the relationship between divorce and children's school engagement differ according to parents' educational level; and (2) what factors might explain variation in the relationship between divorce and children's school engagement according to parents' educational level? These research questions are investigated on cross-sectional data of the Leuven Adolescent and Family Study data ( $\mathrm{N}=7035$ ).

This study contributes to the research literature in three ways. First of all, it explicitly examines processes that explain why divorce may affect children with a certain socioeconomic background more than others. To our knowledge, Martin (2012), Augustine (2014), and Bernardi and Boertien (2016) are the only (published) studies which investigate these processes. Their findings show that especially income and parenting characteristics explain heterogeneity in the divorce effect between children of different socioeconomic backgrounds. Second, we focus on the outcome variable school engagement. This important outcome has not yet been studied with respect to the moderating role of parents' educational level, as most studies focus on some variant of academic achievement (Bernardi and Radl 2014; Martin 2012). Third, this is the first study that uses multi-group structural equation models to investigate how the mediators of the relation between divorce and child outcomes differ between certain socioeconomic groups. Multi-group structural equation models have the advantage that they are more parsimonious than models with a large number of interaction effects.

### 17.2 Literature Review

School engagement is the core dependent variable in this study. This non-cognitive educational outcome has received much research attention recently. Studies have shown that school engagement is linked to a number of educational outcomes, such as school attendance, academic achievement, educational aspirations, and enrollment in higher education (Fredricks et al. 2004). School engagement is usually
defined as a multidimensional concept, consisting of emotional, behavioral and cognitive engagement. Emotional engagement refers to children's affective reactions to class and school in general. Behavioral school engagement relates to conduct in school, involvement in learning and academic tasks, and participation in schoolrelated activities. Cognitive engagement refers to investments in learning and selfregulation (Fredricks et al. 2004). School engagement is a malleable characteristic that results from the interaction between individual and context, such as the family, school and peers. The correlates of school engagement are very similar to those of academic achievement (Fredricks et al. 2004). In this study, we focus on the impact of the family context, and more specifically the impact of divorce and family resources, on school engagement.

Children with divorced parents tend to have lower school engagement than children with continuously married parents (Havermans et al. 2014). In the following, we discuss three factors that underpin this relationship. First, there is the direct psychological impact when children experience family dissolution. The departure of one parent from the household can be painful and stressful for children. They may experience feelings of loss, anger and rejection after the initial separation (Kelly and Emery 2003). This can interfere with children's engagement and achievement in school. Second, the lower availability of financial and social family resources (i.e. quality of family relations) after family dissolution is posited as a strong mediator in the relation between parental divorce and the educational outcomes of children (Sun and Li 2011). Children with divorced parents tend to have fewer financial resources available to them than children with married parents, because the departure of a parent often decreases the total household income. This can interfere with the learning activities of children in a number of ways: (1) there is less money to invest in children's educational career (e.g. school, books) (Brooks-Gunn et al. 1995); (2) economic deprivation can lower parents' and children's educational expectations which can lead to lower school engagement (Astone and Mclanahan 1991); and (3) economic deprivation is often associated with a lower quality of the parent-child relationship and more parental conflict (Conger et al. 2010). In addition to financial resources, the availability of social resources in families with divorced parents tends to be lower. Children with divorced parents have on average less contact with their parents than children with married parents (Amato 2010). Moreover, the strength of the parent-child relationship may also be lower for children with divorced parents (Havermans et al. 2014). Additionally, conflicts between parents do not always end after a divorce (Musick and Meier 2010). Parental conflict is related to lower parental involvement, less effective parenting, and a poorer parent-child relationship. These can lower children's academic success and engagement in school (King and Sobolewski 2006; Murray 2009). The third, final factor that underpins the relation between divorce and children's school engagement is selectivity. Certain inherent characteristics of parents or children may be direct causes of dysfunctional family patterns and divorce, and of lower school engagement (Sigle-Rushton et al. 2014). Parents' educational level (and factors associated with this) is often mentioned as a potential selection mechanism, because it is related to both the risk of parental divorce and children's school engagement (McLanahan and Percheski 2008). As the
educational gradient of divorce becomes more negative in most western countries, children of lower educated parents are becoming more likely to live in a non-intact family (Härkönen and Dronkers 2006). Children of lower educated parents tend to have lower academic achievement and school engagement than children of higher educated parents (Astone and Mclanahan 1991).

In addition to the evidence that children with divorced parents have more negative educational outcomes than children with continuously married parents, recent studies have investigated whether this relation differs according to parents' educational level. Some studies report that especially children of lower educated parents are negatively affected by divorce (Albertini and Dronkers 2009; McLanahan 2004). This is explained by the 'social origin compensatory hypothesis' (Bernardi and Radl 2014). Socioeconomic deprivation tends to be stronger among lower educated divorced parents, as lower educated parents have fewer opportunities on the labor market, obtain a lower income and live in lower-quality housing (McLanahan 2004; Musick and Mare 2004; Bernardi and Boertien 2016). Furthermore, lower educated parents have on average less interpersonal skills, time and other resources to help children cope with divorce-related changes, and to maintain a quality parent-child relationship after divorce (Augustine 2014; Cooper et al. 2009; Mandemakers et al. 2010; McLanahan 2004). Higher educated parents can buffer their children from such negative consequences of divorce. Their high educational level helps them to minimize the loss of financial resources after divorce and their higher interpersonal skills can help them to support children and maintain a good relationship with them.

Conversely, other studies report that negative consequences of divorce are stronger for children whose parents have a high socioeconomic background and thus diminishes inequalities between children (Fischer 2007; Martin 2012). This is explained by the 'floor effect hypothesis' (Bernardi and Radl 2014): children of lower educated parents are less affected by divorce as they already start with lower levels of academic achievement, parent involvement and financial resources. Children of higher educated parents are expected to experience a reduction in time and money parents can invest in them (Bernardi and Radl 2014) and a decrease in their parents' educational expectations after divorce (Martin 2012). A divorce can thus interfere with the competitive advantage children of higher educated parents have in the educational system (Bernardi and Radl 2014).

The extant literature is somewhat inconclusive, with some studies supporting the 'floor effect hypothesis' and other studies supporting the 'social origin compensatory hypothesis'. These mixed results could be explained by the research context and the operationalization of parental socioeconomic background. First, the context of the study can influence research findings. Bernardi and Radl (2014) have shown that in countries with an early selection into educational tracks (such as Belgium) the divorce effect is stronger for children of lower educated parents, whereas in countries with a different educational system, children of higher educated parents are more affected by divorce. However these authors do not formulate an explanation for how the educational system might influence the moderating role of parents' socioeconomic background. Second, the operationalization of parents' socioeconomic
background can also influence research findings (Bernardi and Boertien 2017). Fischer (2007) found that the moderating effects of maternal and paternal educational level diverge when simultaneously included in the analytical model. A high level of maternal resources is related to a weaker divorce effect because these maternal resources protect children from the negative consequences of divorce ('social origin compensatory hypothesis'). Conversely, a high level of paternal resources is related to a stronger divorce effect because the resources that are 'lost' after divorce are often the resources of the father ('floor effect hypothesis'). These findings need to be approached with caution, because high multicollinearity in models that include maternal and paternal educational levels work against definitive results (Grätz 2015). Furthermore, it should be taken into account that children in shared residence arrangements have access to both maternal and paternal resources.

This study investigates how and why the relation between divorce and children's educational outcomes can differ according to parents' social background. Based on the literature review, we test two competing hypotheses: the social origin compensatory hypothesis and the floor effect hypotheses. Following the social origin compensatory effect hypothesis (H1), we expect that the relation between divorce and school engagement is more negative for children of lowly educated parents (H1a) and that this can be explained by the stronger negative relation between divorce and the availability of financial and social family resources for children of lowly educated parents (H1b). The floor effect hypothesis (H2) claims that the relation between divorce and school engagement is more negative for children of highly educated parents (H2a) and that this can be explained by the stronger negative relation between divorce and the availability of financial and social family resources for children of highly educated parents (H2b).

### 17.3 Data and Methods

### 17.3.1 Leuven Adolescent and Family Study 2008-2012

The data for our analysis are from the first four rounds of the Leuven Adolescent and Family Study (LAFS) 2008-2012. LAFS is a repeated cross-sectional study, collected in yearly rounds since 2008 in Flanders, the Northern part of Belgium, by the Family and Population Studies research team of the University of Leuven (www. soc.kuleuven.be/lago). The LAFS sampling strategy has two stages (Vanassche et al. 2012). First, secondary schools are selected by a purposive, disproportional stratified sampling technique to increase the response rate at the school level. Second, classes of pupils in the selected schools are surveyed. The distribution of sex (male/female), year (first to seventh year) and educational track (academic track, technical track, vocational track) strongly resembles the total school population in Flanders (Vanassche et al. 2012). In total, 7035 pupils between 11 and 19 years old in 44 secondary schools are surveyed.

### 17.3.2 Variables

### 17.3.2.1 Dependent Variable: School Engagement

The school engagement scale consists of 12 items that are measured on a 5-point scale (Brutsaert 1993). Children were asked to what degree they agreed with statements regarding their behavioral, emotional and cognitive engagement with school. Behavioral engagement is measured with items such as making the effort to complete homework and being persistent and eager to learn. Emotional items are linked to their feelings about school, such as showing interest or disinterest in school and being focused or distracted in class. Cognitive items tap the psychological investment in learning, such as looking up additional information on subject material. Because there is a considerable conceptual overlap between the three dimensions, an operationalization into separate scales is complicated. Consequently, most studies use a single general scale of school engagement (without distinguishing between the dimensions), or examine only one or two dimensions (often emotional and behavioral engagement) (Fredricks et al. 2004). In the operationalization of school engagement, we also integrate the three dimensions in one multidimensional concept of school engagement.

### 17.3.2 2 Grouping Variable: Parents' Educational Level

We did not include both mother's and father's educational level in the models for two reasons. Firstly, these two variables are highly correlated ( $78 \%$ of children have parents with the same educational level). Secondly, we want to take the residential arrangement of the child into account, because this influences the access to parental resources after divorce. If parents are still together, we take the highest educational level of both parents into consideration (Buis 2013). In case of divorce and sole custody, the educational level of the residential parent is considered. In case of a divorce and joint custody, the highest educational level of both parents is considered. The variable measuring parents' educational level consists of three categories: low educational level (<ISCED 3; 4\%), medium (ISCED 3-4; 27\%), and high ( $>$ ISCED 4; 59\%). Bivariate analyses clearly show that parents' educational level is related to the incidence of parental divorce. Children with a lowly or medium educated parent are more likely to live in a non-intact family than children with a highly educated parent: $42 \%$ of children with lowly educated parents have divorced parents, compared to $33 \%$ of children with medium educated parents and $21 \%$ of children with highly educated parents $\left(\chi^{2}=133.377 \mathrm{df}=2, \mathrm{p}=0.000\right) .{ }^{1}$

[^54]
### 17.3.2.3 Independent Variables: Family Resources and Divorce

Financial family resources are measured by the frequency of financial problems within the family. This frequency is indicated on a four-point scale: $1=$ never; $2=$ seldom; $3=$ sometimes; and $4=$ regularly. For children with divorced parents, this question is asked in relation to both the mother and the father. The financial situation of the mother is used in the analyses when children are in her custody. The financial situation of the father is used when children are in his custody. The mean financial situation of both parents is considered for children in joint custody. The average score on the financial situation variable is 1.70 .

Social family resources are measured via three indicators: the quality of the relationship between children and their mother; the quality of the relationship between children and their father; and parental conflict at the moment of the interview. The quality of the relationship between children and their parents is measured by the Network Relationships Inventory scale of eighteen items (Furman and Buhrmester 1985). Parental conflict is measured via the Conflict Awareness Scale (Grych and Fincham 1993) which measures the intensity of parental conflict at the time of the interview.

The marital status of children's parents is coded as a set of dummy variables. Children are asked whether their parents are (1) married and cohabiting; (2) cohabiting, but not married; (3) divorced after marriage; (4) separated after cohabitation; (5) married, but not cohabiting; (6) single, never cohabited. Children with at least one deceased parent ( $1.7 \%$ ) are excluded from the analyses. Only a very small proportion of children have parents who are cohabiting without marriage (1.7\%) or who have separated after cohabitation (3.6\%). Given that the consequences of a separation after cohabitation are very similar for children to those of a divorce in Europe (Amato 2004), we make no distinction between children with cohabiting parents and children with married parents, and between children with divorced parents and children with separated parents. Children whose parents are divorced, separated, single or not cohabiting are coded one on the dummy variable 'parental divorce'. The other categories are coded zero. One quarter of the children (26.5\%) experienced a parental divorce. This proportion corresponds to official estimates of the proportion of Flemish children experiencing parental divorce (Lodewijckx 2005). Other divorce-related characteristics, such as time since divorce, stepfamily formation or custody arrangements, are not included in the analyses, because they can only be measured for children with divorced parents and would therefore confound with the divorce "effect" in the analyses.

### 17.3.2.4 Control Variables

We include sex, age, educational track, and Belgian nationality as control variables. For sex, girls are coded 1 and boys $0.54 \%$ of the respondents in the research sample are girls. Age is included as a continuous variable centered on its mean of 15 . We control for educational track by including a dummy variable measuring whether the
child follows the academic track in school (57\%) or the technical/arts/vocational track ( $43 \%$ ). The academic track is aimed at academically oriented pupils and prepares them for participation in higher education. Most children start in this track and are directed to the technical or vocational track when they do not reach certain academic standards. The final control variable is Belgian nationality, as a proxy of the migration background of children. This is measured by a dummy variable ( $0=$ no, $1=$ yes ). $8 \%$ of the pupils in the sample have a non-Belgian nationality. These children are mostly first-generation immigrants, as second-generation immigrant children often have the Belgian nationality. A table with descriptive values for the dependent, independent and control variables is available on request with the authors.

### 17.3.3 Multi-Group Structural Equation Models

Multi-group structural equation models are performed on the LAFS data. Maximum likelihood estimators with robust standard errors are used to correct for the clustering of the respondents in schools. The estimators use full information maximum likelihood estimation to deal with missing value. The models are constructed in two steps. First, multi-group confirmatory factor analyses are conducted to specify the measurement of the latent concepts (school engagement, mother-child relationship, father-child relationship, parental conflict) across the three groups. The factor structure, factor loadings and item intercepts are constrained to be equal across the three groups of children. This 'scalar equivalent' model implies that mean differences of latent concepts are the result of substantial differences between groups, and not of different interpretations of the questions or different response styles (Raju et al. 2002). The unstandardized factor loadings ( $>.40$ ) and fit indices of the null model are available on request with the authors. The fit indices of the scalar equivalent model $(\mathrm{CFI}=0.919 ; \mathrm{TLI}=0.917 ; \mathrm{RMSEA}=0.051 ; \mathrm{SRMR}=0.052)$ show that this model fits the data sufficiently. In a second step, the relations between the latent and observed variables are included into the model. The analytical model is presented in Fig 17.1. We specify an indirect path via the financial and social family resources. Also, a path between financial resources and social resources is included, because families with high financial means generally have less parental conflict and better parent-child relationships (Conger et al. 2010). Furthermore, the model includes a direct path between divorce and children's school engagement. This estimate should pick up the direct psychological impact of divorce, as well as the indirect relationship via omitted mediators and the spurious association due to selectivity. The control variables are also included in the model. Because we expect these relations to differ between the groups, we do not constrain the structural effects to be equal across groups. We execute Wald chi-square tests to examine whether effect sizes are significantly different between groups. We report this in the results section, the Wald chi square test values for all parameter estimates are available on request.


Fig 17.1 Analytical model of the multi-group structural equation model

### 17.4 Results

In the group of children with the least educated parents, parental divorce has a negative direct relationship with children's school engagement (Tables 17.1 and 17.2). A good mother-child relationship is related to more engagement in school. Educational track is the only control variable that is significantly related to school engagement in this group: children in the technical track are less engaged in school than children in the academic track. With regard to the mediating variables, the results show that parental divorce is associated with a lower quality of the mother-child and fatherchild relationship and more financial problems. Financial problems are in turn related to more parental conflict in this group (Table 17.2). There is a small indirect association between divorce and school engagement via a poorer mother-child relationship, but the total indirect effect is not significant (Table 17.1).

For children with medium educated parents, school engagement is positively associated with the quality of the mother-child and father-child relationship. Girls with medium educated parents have higher levels of school engagement than boys. Furthermore, children in the technical track are less engaged than children in the

Table 17.1 Unstandardized estimates and standard errors for direct and indirect effects of parental divorce on school engagement in multi-group structural equation model

|  | Low educational <br> level | Medium <br> educational level | High educational <br> level |
| :--- | :--- | :--- | :--- |
|  | Est.(S.E.) | Est.(S.E.) | Est.(S.E.) |
| Indirect effects of parental divorce ${ }^{\text {a }}$ on school engagement via |  |  |  |
| Relation with mother | $-0.052(0.024) *$ | $-0.020(0.007) * *$ | $-0.010(0.007)$ |
| Relation with father | $0.033(0.036)$ | $-0.038(0.014) * *$ | $-0.031(0.007) * * *$ |
| Parental conflict | $0.008(0.011)$ | $-0.009(0.005)$ | $-0.008(0.004)$ |
| Financial problems | $-0.017(0.015)$ | $-0.003(0.009)$ | $0.015(0.009)$ |
| Financial problems and <br> relation with mother | $-0.001(0.003)$ | $-0.008(0.003) * *$ | $-0.011(0.002) * * *$ |
| Financial problems and <br> relation with father | $0.002(0.003)$ | $-0.007(0.002) * *$ | $-0.006(0.002) * * *$ |
| Financial problems and <br> parental conflict | $0.007(0.005)$ | $-0.006(0.004)$ | $-0.008(0.003) * *$ |
| Total of indirect effects | $-0.019(0.057)$ | $-0.091(0.019) * * *$ | $-0.058(0.013) * * *$ |
| Direct effect of parental <br> divorce on school engagement | $-0.304(0.099) * *$ | $-0.029(0.035)$ | $-0.025(0.027)$ |

Notes: $\mathrm{N}=7035 . * \mathrm{p} \leq 0.05 ; * * \mathrm{p} \leq 0.01 ; * * * \mathrm{p} \leq 0.001$
Source: LAFS 2008-2012
${ }^{\text {a }}$ Parental divorce: $0=$ no, $1=$ yes. $\mathrm{CFI}=0.88 ; \mathrm{TLI}=0.87 ; \mathrm{RMSEA}=0.05$
academic track in this group. Children with the Belgian nationality have lower school engagement than children with a non-Belgian nationality. This is in line with previous studies that have reported that first-generation immigrant children are more engaged in school than native children or later-generation immigrant children (e.g. Motti-Stefanidi and Masten 2013). With regard to the mediating variables, a parental divorce and financial problems both decrease the quality of the motherchild and father-child relationship, and they are associated with an increased frequency of parental conflict. Financial problems are higher in non-intact families (Table 17.2). The total indirect relation between divorce and school engagement is significant in this group, and it operates via poorer father-child and mother-child relationships, the indirect link between financial problems and parental conflict, and between financial problems and the parent-child relationship variables (Table 17.1).

In the group of highly educated parents, school engagement is positively related to the mother-child and father-child relationship. Girls with highly educated parents have more school engagement than boys with highly educated parents. Pupils in the academic track are also more engaged in school than pupils in the technical and vocational track. Finally, children with a non-Belgian nationality report more school

Table 17.2 Unstandardized estimates and standard errors for multi-group structural equation model

|  | Low educational level | Medium educational level | High educational level | Significant differences between groups? |
| :---: | :---: | :---: | :---: | :---: |
|  | Est. (S.E.) | Est. (S.E.) | Est. (S.E.) |  |
| Dependent variable: school engagement |  |  |  |  |
| Parental divorce ${ }^{\text {a }}$ | -0.304 (0.099)** | -0.029 (0.035) | -0.025 (0.027) | Yes, between low-high ${ }^{\circ}$ |
| Financial problems | -0.051 (0.043) | -0.008 (0.021) | 0.029 (0.018) | Yes, between three groups* |
| Relation with mother | 0.141 (0.054)** | 0.153 (0.025) *** | 0.194 (0.022)*** | No |
| Relation with father | -0.055 (0.057) | 0.070 (0.023) ** | 0.079 (0.017)*** | No |
| Parental conflict | 0.080 (0.052) | $-0.054(0.033)^{\circ}$ | -0.065 (0.025)** | Yes, between low-medium ${ }^{\circ}$ |
| Age ${ }^{\text {b }}$ | -0.024 (0.018) | -0.012 (0.011) | -0.008 (0.007) | No |
| Sex ${ }^{\text {c }}$ | 0.112 (0.078) | 0.161 (0.039)*** | 0.129 (0.022) *** | No |
| Educational track ${ }^{\text {d }}$ |  |  |  | No |
| Technical | -0.328 (0.105)*** | -0.157 (0.057)** | -0.126 (0.037)*** |  |
| Vocational | -0.058 (0.100) | -0.070 (0.061) | -0.116 (0.042)** |  |
| Belgian nationality ${ }^{\text {e }}$ | -0.065 (0.169) | -0.179 (0.070)* | -0.167 (0.042)*** | No |
| Dependent variable: financial problems |  |  |  |  |
| Parental divorce ${ }^{\text {a }}$ | 0.337 (0.090)*** | 0.439 (0.050) *** | 0.508 (0.043)*** | Yes, between low-high ${ }^{\circ}$ |
| Dependent variable: relation with mother |  |  |  |  |
| Parental divorce ${ }^{\text {a }}$ | -0.367 (0.108)*** | -0.132 (0.052)** | -0.050 (0.039) | Yes, between medium-high ${ }^{\circ}$ |
| Financial problems | -0.024 (0.069) | -0.119 (0.027)*** | $-0.108(0.017) * * *$ | No |

Dependent variable: relation with father

| Parental <br> divorce $^{\mathrm{a}}$ | $-0.610(0.119) * * *$ | $-0.542(0.072) * * *$ | $-0.388(0.047) * * *$ | Yes, between <br> three groups $* *$ |
| :--- | :---: | :---: | :---: | :--- |
| Financial <br> problems | $0.270(0.082)$ | $-0.216(0.021) * * *$ | $-0.147(0.019) * * *$ | No |

Table 17.2 (continued)

|  | Low educational <br> level | Medium <br> educational level | High educational <br> level | Significant <br> differences |
| :--- | :--- | :--- | :--- | :--- |
| between groups? |  |  |  |  |

Source: LAFS 2008-2012
Notes: $\mathrm{N}=7035 .{ }^{\circ} \mathrm{p}<0.10 ; * \mathrm{p} \leq 0.05 ; * * \mathrm{p} \leq 0.01 ; * * * \mathrm{p} \leq 0.001$. $\mathrm{CFI}=0.88$; TLI $=0.87$; RMSEA $=0.05$. Dependent variable of the equation is presented in italics
${ }^{\text {a Parental divorce: } 0=\text { no, } 1=\text { yes }}$
${ }^{\mathrm{b}}$ Age is centered around mean of 15
${ }^{\text {c }}$ Sex: $0=$ boy, $1=$ girl
${ }^{\text {d}}$ Educational track: reference group is academic track
${ }^{\text {e }}$ Belgian nationality: $0=$ no, $1=$ yes
engagement than Belgian children. Regarding the mediators in the model, parental divorce is related to more financial problems and parental conflict, and with a lower quality of the father-child relationship. Financial problems have a negative relation with the mother-child and father-child relationship and a positive relation with the frequency of parental conflict (Table 17.2). The total indirect connection between divorce and school engagement is significantly negative in this group. It is mediated via the father-child relationship and the indirect effects of financial problems on the parent-child relationship and parental conflict (Table 17.1).

Overall, these findings suggest that the pathways of divorce differ according to parents' educational level. The availability of resources after divorce explains the relation between divorce and children's school engagement more in the groups of children with medium and highly educated parents, than in the group of children with lowly educated parents. Three findings support the 'floor effect hypothesis' (H1) that claims that the relation between divorce and the availability of resources is stronger for children with higher educated parents. First, the relation between divorce and financial resources is stronger for children of highly educated parents than for children of lowly educated parents. Second, financial problems are significantly related to the quality of the mother-child and father-child relationship for children with medium and highly educated parents, but less so for children of lowly educated parents. Third, there is no significant indirect path in the group of children with lowly educated parents via the lower availability of family resources. Conversely, the finding that highly educated parents are better at protecting the father-child relationship from the negative consequences of parental divorce than medium educated parents, supports the 'social origin compensatory hypothesis' (H2) which claims that higher educated parents have more resources after divorce than lower educated parents.

### 17.5 Conclusion

In this study, we aimed to determine how and why the relation between divorce and children's school engagement differs according to parents' educational level. A first important finding of this study is that the relation between divorce and school engagement is significantly more negative for children of lowly educated parents than for children of higher educated parents. This finding is in line with the social origin compensatory hypothesis (H1a) and supports the idea that divorce is related to 'diverging destinies' of children: children of lowly educated mothers and fathers have a higher risk of experiencing a parental divorce and they experience more negative outcomes after divorce than children of highly educated parents (McLanahan 2004). Our results appear to contradict those studies that report a stronger divorce effect for children of higher educated parents (e.g. Bernardi and Radl 2014; Martin 2012). This may be a function of the research context. Flanders (Belgium) has a stratified educational system with an early selection into educational tracks. Bernardi and Radl (2014) demonstrated that in such a system the educational outcomes after divorce for children of lower educated parents are more negative than for children of higher educated parents. Another explanation may be found in the operationalization of parents' educational level: we have chosen to focus on the highest educational level of the residential parent, and not on the educational level of mother and/or father. Boertien and Bernardi (2017) have shown that the operationalization of socioeconomic background (mother or father) has a strong impact on the research findings regarding the heterogeneity of the divorce effect.

The multi-group structural equation models presented above provide insights into the group-specific processes linking divorce and school engagement. Given that we found that the association between divorce and school engagement is stronger for children of lowly educated parents, we expected that the availability of resources is a particular important mediator for this group (H1b). This hypothesis is supported by the results for the father-child relationship: highly educated parents are more successful in buffering the potential negative consequences of divorce in this domain. Conversely, three findings support the alternative 'floor effect hypothesis' (H2b): the effect size of divorce on financial problems is considerably stronger for children of medium and highly educated parents than for children with lowly educated parents; the relation between financial problems and the parent-child relationship variables is only significant for children with medium and highly educated parents; and the indirect relation of divorce on school engagement via family resources is not significant for children with lowly educated parents.

Overall, the research findings show that the availability of resources is an important determinant of school engagement of children in non-intact families with medium and higher educated parents. For children with lowly educated parents, we find that the association between divorce and school engagement cannot be explained by the lower resources availability as for children with medium and highly educated
parents. Other mechanisms that may account for this relation in the group of children with lowly educated parents, include a direct psychological effect, the operation of other mediators or selectivity. First of all, the direct psychological effect of divorce may be stronger for children of lower educated parents. Children from a low socioeconomic background tend to interpret stressful situations, such as parental divorce, more often as threatening than do children of a higher socioeconomic background (Chen et al. 2004). Secondly, other mediating factors may be more suitable for explaining the divorce effect in this group. For instance, custody arrangements, stepfamily formation and family instability after divorce are in general more problematic for children of lower educated parents (McLanahan 2009; Sodermans et al. 2013). These factors are not included in the analyses, as they can only be measured for children with divorced parents and would therefore confound with the divorce effect. Also, parents' social network may explain why the negative relation between divorce and school engagement is stronger for children of lower educated parents; higher educated parents tend to have a larger social network to draw upon when confronting problems associated with divorce (Augustine 2014). Thirdly, selectivity may also underlie the direct effect of divorce for children of lowly educated parents. There may be some confounding selection factors that are related to both parents' educational level, divorce risk and children's educational outcomes, such as the parents' physical and psychological health (Sigle-Rushton et al. 2014). Exploring these mechanisms specifically for children with lowly educated parents can be a fruitful direction for future research, especially in the development of policy recommendations.

The generalizability of the findings is subject to some limitations. First of all, we use cross-sectional data making it more difficult to draw causal inferences. For instance, information on family resources is only available at the time of the interview, and there is no information on the loss of resources during the divorce process. Longitudinal data could ameliorate this limitation. Second, our data do not include an indicator of children's school performance, a more cognitive dimension of educational outcomes. Nevertheless, we would expect similar findings, as school engagement is strongly correlated to academic achievement.

The findings of this study have some implications for policymakers. First of all, policy interventions should take children's socioeconomic background into account: children from different socio-economic positions might have been different needs in terms of the implications of parental separation on their school engagement. Second, we found that family relationships are important mediators of the relation between divorce and children's school engagement in all socioeconomic groups. Improving family relationships after divorce can therefore help children to adjust to their new family structure, regardless of their socioeconomic background.

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[^2]:    ${ }^{1}$ See the BHPS User Manual Volume A; https://www.iser.essex.ac.uk/bhps/documentation/vola/ index.html

[^3]:    ${ }^{2}$ http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_ndivind\&lang=en. Accessed 29/05/2018.

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[^8]:    ${ }^{1}$ In a more recent article, Levinger (1999: p. 49) also distinguished a fourth factor: barriers of alternative relationships, which are defined as "psychological pressures from alternative states that interfere with carrying out one's commitment to the primary relationship."

[^9]:    ${ }^{2}$ I could also place alternative attractions in the category of affectional costs. Having few potential partners of the opposite sex available around them can increase the threshold for women to break

[^10]:    up as they might not see a good alternative for the current spouse. Such alternative affectional costs could be proxied by the male/female ratio in a country or region, but because I do not expect to see a relationship with female education, I will not include such a variable.

[^11]:    ${ }^{3}$ Obviously, religious dissimilarity may play a role (it can be a source of attitudinal dissimilarity for instance), but I cannot study this, as in the GGS the religious denomination of the spouse is not asked for.
    ${ }^{4}$ Note that in the case of public support for a break up, the separation risk of the couple could be higher since in that case they would adhere to the then present social norm.

[^12]:    ${ }^{5}$ In Germany and Italy, information about durables and church attendance was not asked. In the Netherlands, the degree of urbanization, the age of the children, and the item about marriage is an outdated institution were not asked; in Hungary, church attendance, degree of urbanization, and conflict resolution skills not. In Lithuania, the low educated category was so small that I could not compare it to the other categories $(\mathrm{N}=13)$. Moreover, variables such as male and female unem-

[^13]:    ployment, educational similarity/male hypergamy, whether missing on conflict resolution skills, and parental divorce could not be included due to small sample sizes per cell.
    ${ }^{6}$ There are very few separations among women older than 45 years in the countries studied. Moreover, for Austria women older than 45 were not part of the sample. When excluding Austria and performing the analyses on the sample of women aged 80-years, I find a similar size of the educational gradient and similar mediation effects, apart from missingness on the communication skills variables; that mediating effect dissapears (see discussion of results further on).
    ${ }^{7}$ This shows that either the CDR is not a reliable measure of the likelihood to break up in a country and one can better rely on the TDR, or the GGS data have a coverage problem (are not representative) because the CDR in Russia and Czech Republic is much higher than in Austria, contrary to what I find here with the GGS data.
    ${ }^{8}$ Note that the concomitant variables are just control variables, in the sense that they are included in both the reduced and the full model, but their residual is not calculated and included in the reduced model.

[^14]:    Symbolic costs

[^15]:    ${ }^{9}$ These models are controlled for age at union formation, union duration and union duration squared, (premarital) cohabitation, education of the mother, and working hours.

[^16]:    ${ }^{10}$ Unfortunately, I cannot take both his education and educational dissimilarity into account in one model, as this would lead to multicollinearity. Since educational (dis)similarity contributed more to the explanation of union dissolution than his education, I chose to continue with educational (dis)similarity only. A model where I included his education instead of educational (dis)similarity showed that his higher education suppresses the female negative gradient. Including his education instead of (dis)similarity did not change the effect sizes of the other mediators much.
    ${ }^{11}$ Excluding educational (dis)similarity changes the results only slightly: The sizes of all the mediating effects remain more or less the same. However, the total suppressive indirect effect of attractions changes substantially: The total explanatory effect of attractions is in this case $-22 \%$ (mid-low educational difference) and $-40 \%$ (high-low educational difference).

[^17]:    ${ }^{12}$ Note the time order here: Parental divorce affects education rather than the other way around.

[^18]:    ${ }^{13}$ Only his unemployment is a more important explanatory variable, explaining $12-14 \%$ of the educational difference in the union dissolution odds. This indirect effect disappears after taking her relationship satisfaction into account, something that has also been found by Boertien and Härkönen (2018) in their path model (part of the mediation of his unemployment on divorce is via her marital satisfaction). The suppressor effects of educational homogamy are much smaller ( $-46 \%$ for the mid-low and $-29 \%$ for the high-low difference) and the influence of selection into the union that is captured by the IMR is somewhat larger (5-8\%).

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[^20]:    ${ }^{1}$ While ultra-Orthodox Jews have much higher fertility and poverty rates than the rest of the Jewish population (Endeweld et al. 2018), such that there is a possibility of heterogeneity effects, we unfortunately could not run separate models for them, as there were not enough cases in the data to do so.

[^21]:    ${ }^{2}$ That is, we have data for women who married in 2003 (in Israel or abroad) and who had established residence in Israel for at least 1 year of the research period.
    ${ }^{3}$ Once a marriage was dissolved, the woman was removed from the analysis, as she was no longer at risk of divorce.
    ${ }^{4}$ We limited economic position to annual earnings, as information on education was only available for women aged 35 and younger and we did not want to restrict the sample to this age group. As a robustness test, we reran the models on a sample up to age 35 , including the education variable. Results were mostly the same. To check for income fluctuations, we ran a correlation between earnings across years; correlations were around .80 .
    ${ }^{5}$ The relatively high rate of families without earnings is explained as follows. First, about two thirds of this population received NII benefits (e.g., unemployment, disability, retirement pensions). Second, our database includes income from self-employment, wages and most benefits, but does not include funds received from other families or government agencies other than NII, or income from capital.

[^22]:    ${ }^{7}$ Immigrants have a higher risk of divorce in the raw data, when not controlling for other variables.
    ${ }^{8}$ Data compilations including educational variables are limited to the population up to the age of 35. Calculation of the models for this population yielded no significant difference between findings with and without the educational variables. These results can be received upon request.

[^23]:    ${ }^{9}$ Since 2012, tax credit has been afforded to families with children in Israel, but only to parents working more than half-time.

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[^26]:    ${ }^{1}$ To put this into context, public opinion research showed that the perceived line of poverty was 11,173 rubles in 2015 and 15,506 rubles in 2017 . This is the monthly income per person that Russians consider too low to cover every day needs (Davidova 2017).

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[^29]:    ${ }^{1}$ We analyze single parents following divorce only and do not consider those entering single parenthood via widowhood, fertility outside of marriage or the dissolution of a cohabiting union.

[^30]:    ${ }^{2}$ Statistical indicators for the composite measures of SWB are reported in appendix one, including Pearson correlations and Cronbach's Alpha. Cronbach's Alpha indicates that the internal consistency could not be improved by the removal of any of the items included in both of the composite measures.

[^31]:    ${ }^{3}$ We have chosen to separate the child residency variable by the age of children. This is to prevent the mixing of different expected associations (adult children who have left the home, children under 18 but are no longer home because of a new custody arrangement, and those who have no children). In some cases this leads to categories with a low number of cases, however due to the theoretical distinctions in the associations we expect from these different categories, we believe this is an important separation to make.
    ${ }^{4}$ Missing values for the independent variables are categorised as separate levels in each categorical variable and can be seen in Table 10.2.

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[^34]:    ${ }^{1}$ Throughout this text, we use the term shared custody to describe the custody arrangements in which after a break-up both parents share the physical custody of their child(ren). We do not define specifically its meaning, nor the ratio of the sharing, because we use this term in its phenomenological sense as an agenda of public discourse. Usually, a time division from $25 \%$ to $50 \%$ spent with one parent is used to define shared custody (cf. Steinbach 2018). We also use shared custody in the same meaning as joint physical custody.

[^35]:    ${ }^{2}$ Some scholars provocatively re-frame the whole conventional research on the impact of divorce on children as research on the impact of sole custody arrangements (Nielsen 2018b).

[^36]:    ${ }^{3}$ The divergence from the western dynamic of gender roles is partly caused by the persistence of the high level of participation in the labor force by women after WWII, connected with the state propositions of gender equality (for more see Lišková 2018).
    ${ }^{4}$ This proportion was reached quite recently. The first decade after introducing the new law, the percentage of decisions in favor of shared custody was lower than $5 \%$; after 2010, the proportion started to increase more rapidly.

[^37]:    ${ }^{5}$ The project started in 2015; here, we make use of the second wave, fielded in 2016. The sampling unit in this survey is the household. The sample of individual adults representing general public opinion: 4877 individuals ages $18-90$ provided a response for the above-mentioned question.
    ${ }^{6}$ The design of these indicators was inspired by Hackstaff's notion of divorce culture as a set of values, beliefs, and attitudes as a social reaction to high divorce risk. The divorce culture is contradictory to the marriage culture, in which marriage is taken for granted (Hackstaff 1999).
    ${ }^{7}$ The answering categories were strongly disagree; somewhat disagree; somewhat agree; and strongly agree.

[^38]:    ${ }^{8}$ Only the valid responses were used. Responses of "don't know/have no opinion" reached $8 \%$ in CHPS data and $18 \%$ in EVS (the difference is probably caused by the necessity to choose between two options in EVS data).

[^39]:    ${ }^{9}$ The index is constructed as a mean value of three or four items associated in the gender attitudes set of questions. Although there are more items available in the EVS and CHPS dataset, we use the

[^40]:    questions that show satisfactory levels of internal consistency. Only valid responses were used; the "don't know/no opinion" category represents between $2 \%$ and $4 \%$ of responses.
    ${ }^{10}$ The institution of shared custody is in its beginning stages in the Czech Republic; therefore, we decided to use only two post-divorce custody arrangements. Other arrangements or variant models to 50/50 shared custody are almost invisible in the public debate.
    ${ }^{11}$ The last model is estimated only for CHPS data because the smaller EVS dataset does not provide any significant results.
    ${ }^{12}$ The most important discrepancy between EVS and CHPS data is the systematic offset in the overall level of acceptance of shared custody - as noted in the previous chapter, we assume this offset is the result of the different wordings of the questions used to measure the attitudes. Nonetheless, the patterns of gender difference, effect of age, limited influence of status variables, and no effect of gender-role attitudes identified in both datasets seem to be almost identical.

[^41]:    ${ }^{13}$ See the change of R-squared statistics between the models A, B, and C.

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[^43]:    ${ }^{1}$ When we speak of 'children' in the case of divorce, we refer to the children from the previous marriage and we exclude children who were born in subsequent unions.

[^44]:    ${ }^{2} \mathrm{~A}$ few of these respondents may never have lived together with a partner.

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[^46]:    ${ }^{1}$ ISCED 2011 category 5 does not exist in the Lithuanian education system.

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[^48]:    ${ }^{1}$ There is the possibility to claim childrearing support, if the parent living with the child is unmarried and the child is under the age of three.

[^49]:    ${ }^{2}$ Albeit widely used, the terminology is contested (see footnote 1 in the paper by Thomson et al. 2014).

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[^51]:    ${ }^{1}$ The main reason being that we would not be able to distinguish such fine-grained family type categories as we do here, because of sample attrition.

[^52]:    ${ }^{2}$ According to Engzell and Jonsson (2015) adolescent's reports on parental occupation is a more reliable source of socio-economic origin than reports on parental education.

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[^54]:    ${ }^{1}$ We did robustness tests with other specifications of educational level (mean educational level, lowest educational level). They all produced similar findings.

