

Essays on Family Dynamics

Partnering, Fertility and Divorce in Sweden

Linus Andersson

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Abstract

Diversity in household and family structures poses interesting questions for scientific inquiry. What accounts for patterns of reproduction, partnering, household formation and household dissolution? This dissertation investigates facets of this question in the context of modern Sweden from a longitudinal and individual level perspective. It consists of three empirical studies using data from administrative registers and panel survey data. The first study begins with noting a rapid expansion in online education and analyzes whether this development leads to higher fertility in student populations. The second study asks whether individuals' predispositions towards divorce change after exposure to the experience of parenthood, union formation and union dissolution. The third study builds on the literature on assortative mating and investigates what drives underlying preferences for this behavior.

Keywords: *Fertility, Divorce attitudes, Sweden, Educational Homogamy, Life Course, Family Dynamics.*

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- I. Andersson, L. (2018). Online Distance Education and Transition to Parenthood among Female University Students in Sweden. *European Journal of Population*, Advance online publication.
- II. Andersson, L. (2016). Gender, Family Life Course and Attitudes towards Divorce in Sweden. *Acta Sociologica*, 59(1), 51-67.
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*Stockholm
January 2019*

Abstract

This dissertation analyzes the antecedents of variation in family dynamics. Three separate studies examine different sources of variation in partnering, fertility and union dissolution in Sweden. The studies use intergenerational administrative register data and household and fertility histories drawn from longitudinal survey material.

Family processes such as partnering and childbirth are structured across the life course in conjunction with relatively standardized institutions such as educational enrolment and labor market establishment. Individuals adjust to these sequences, which regulate the age at transition to parenthood. The first essay connects research on how educational expansion increases ages at first birth to the literature on the role of technological innovation for family and demographic behavior. The study uses register data to compare first parity transitions among non-student women, women enrolled in tertiary online distance education, and women enrolled in campus education. The results show that first parity transition is far more common among online distance students than among campus students. The results are discussed in relation to the rapid expansion of online education and its potential to reshape the way higher education structures fertility transition in the life course.

Decisions and expectations about family organization are usually normative. The second essay builds on research about the interrelationship between attitudes toward family-demographic behavior and actual family-demographic behavior. Data from the Young Adult Panel Study (YAPS) are used to analyze how individuals' attitudes towards divorce change over time as they are themselves exposed to experiences of family formation, parenthood and union dissolution. Results indicate that women, but not men, change their predispositions and become more tolerant towards divorce after experiencing divorce themselves. The findings are juxtaposed with research on gendered experiences of family dynamics.

Individuals tend to partner with others of similar characteristics. This is a rather universal pattern and one of the most salient ways in which family dynamics impact on societies. The third essay builds on the research about the

preferential causes of educational homogamy among childbearing and romantic couples. The study tests the hypothesis that people are attracted by similarities in taste and worldviews that are produced by the formative aspects of education. Using register data, it tracks the fertility and partnerships of vocational preparatory students with and without exposure to a theoretical tertiary-preparatory curriculum. An added theoretical curriculum had no effect on the likelihood of having one's first child with a partner with university education. The findings are used to problematize assumptions about which aspects of education drive educational homogamy.

Sammanfattning

I den här avhandlingen undersöks förklaringar till familjedemografiskt beteende i Sverige. Det empiriska bidraget utgörs av tre separata artiklar som bygger på longitudinella data från administrativa register samt familje- och fertilitetshistorier från en longitudinell enkätundersökning.

Avslutad utbildning och etablering på arbetsmarknaden anses i många hänseenden vara viktiga förutsättningar för familjebildning. Även om stor variation existerar, styr individers hänsyn till dessa faktorer i mångt och mycket åldern för inträde i föräldraskap. Den första uppsatsen i den här avhandlingen länkar samman forskning som argumenterar att expansionen av högre utbildning drivit upp åldern för förstafödande med teorier om den teknologiska utvecklingens roll för familjebildning. I studien används registerdata för att jämföra fertiliteten hos icke-studerande kvinnor, kvinnor som bedriver studier via digitalt baserad distansutbildning och kvinnor som bedriver platsbundna studier på campus. Resultaten visar att sannolikheten att föda ett första barn parallellt med universitetsstudier är betydligt högre om dessa bedrivs på distans snarare än på campus. Resultaten diskuteras i relation till distansutbildningens snabba expansion och dess potential att förändra hur utbildningssystemet påverkar barnafödande under livsloppet.

Handling och resonering kring familj och partnerfrågor antas ofta ha en normativ komponent. Avhandlingens andra uppsats bygger på forskning kring sambandet mellan attityder till familje-demografiskt och faktiskt familje-demografiskt beteende. Data från enkätundersökningen Young Adult Panel Study (YAPS) används för att analysera huruvida individers attityder till skilsmässa förändras av att individen själv genomgår partnerskap, föräldraskap och separation. Resultaten tyder på att kvinnor, men inte män, skiftar mot ett mer tolerant förhållningssätt gentemot skilsmässa efter att själva ha genomgått en sådan. Resultaten kopplas till forskning om mäns och kvinnors skilda erfarenheter av familjebildning.

Att individer bildar hushåll och reproducerar sig med partners med liknande karaktärsdrag som de själva är ett nära nog universellt mönster. Den tredje uppsatsen i avhandlingen undersöker underliggande orsaker till att föräldrapar tenderar att ha samma utbildningsnivå i högre utsträckning än vad

som är förväntat av slumpen allena. Studien testar en hypotes som gör gällande att individer attraheras av överstämmelse i smak och världsåskådning, som en följd av det formativa innehållet i studier. Genom analyser av registerdata undersöks partnerskapsutfall bland individer som har genomgått yrkesförberedande gymnasieutbildningar med och utan högskoleförberedande, eller formativt, innehåll. Resultaten visar att graden av högskoleförberedande teoretiskt utbildningsinnehåll som tillgodogörs under gymnasieåren inte påverkar sannolikheten att få sitt första barn med en universitetsutbildad partner. Baserat på dessa rön diskuteras antaganden om vilka aspekter av utbildning som driven tendensen till likformigheten i utbildningsnivå mellan makar och föräldrapar.

Introduction¹

All societies have systems that structure relationships of care, reproduction and householding. Individuals linked by such ties are sometimes considered members of a family. Whereas marriage, affinity and consanguine relationships have been of manifest importance throughout history in some shape or form, family organization is both surprisingly diverse and subject to rapid change (Kaplan, Hooper & Gurven 2009; Therborn 2004). The premise for studying family dynamics within the social sciences is that they both impact on and reflect fundamental societal structures. For example, family dynamics provide the micro foundations that influence when and how many children are born per woman, which in turn account for the decline or growth and age composition of entire populations (Rosenzweig & Stark 1997). Typologies of kinship and the composition of family units are intertwined with entitlements and wealth (Foster 2001; Goody & Goody 1976, Hann 2008). Beliefs about the role and the desired role of families are fundamental to governance in such a way that states channel resources to either individuals or heads of households (Esping-Andersen et al. 2002; Orloff 2009). In short, important societal phenomena are interwoven with the commonplace actions of individuals, such as when and how they go about choosing partners, how they form and dissolve households, and how they reproduce. Therefore, seeking to understand the causes of change and variability in such family dynamics is key to the study of modern society.

This dissertation analyzes antecedents to fertility, partnering and union dissolution in Sweden. I build on ongoing research concerned with broad questions such as: How does technological innovation structure whether and when reproduction occurs? Are there latent preferences that guide partner choice? What is the link between demographic behavior and attitudes towards demographic behavior? The empirical contribution of this dissertation is presented in three separate studies. Study I illustrates how changing opportunities and

¹ Valuable comments and suggestions on this introduction were provided by Michael Gähler, Juho Härkönen, Frida Rudolphi and Martin Kolk.

constraints – introduced by technological change in the form of online distance education – may alter fertility timing. Study II is concerned with cultural values and demographic behavior, looking at whether and how attitudes towards family behavior respond to the experiences of marriage, childbearing and divorce. Study III tries to distinguish between different types of incentive/preference-driven mechanisms leading to educational assortative mating.

This dissertation presents quantitative analyses of the interrelationship between events at the individual level as they occur across chronological age. Data include, for example, the timing of first birth, the occurrence of divorce and exposure to specific types of education. Data driven and increasingly applied in research, this longitudinal, individual level approach can be positioned in relation to other viable alternatives. One such alternative would involve studying populations, or aggregate data, as the unit of analysis. This line of research has been very successful, as is illustrated by e.g., the Princeton European Fertility Project, which has improved our understanding of the rapid shift from high to low fertility by comparing overall rates across time and space (Coale & Watkins 1986). Comparing cohort trends across historical periods and contexts opens up for the interpretation of broad changes in family dynamics (Ryder 1965) on a macro level. It is possible to study family dynamics through experiences, by soliciting people's thoughts and narratives (e.g., Brinton et al. 2018; Swidler 2001) or to try to understand family dynamics across time and space via cultural expressions of kin, family courtship, parenthood and so on (Illouz 2013). The longitudinal, individual level approach is ultimately motivated by a desire to shift away from a birds-eye view and deep anecdotal accounts, and to instead produce empirical studies that link observed individual demographic behavior to theory about how individuals act within a given social structure across the life course (Billari 2004, 2005). This agenda and general line of research has proven fruitful, but also incredibly difficult to pursue.

Certainly, a great deal is known about individual family dynamics in the form of descriptions of family structure and events, mainly from individual level household histories and reproductive histories (Andersson & Philipov 2002; Andersson, Thomson & Duntava 2017; Cherlin 2010; Heuveline, Timberlake & Furstenberg 2003), including how these patterns vary across regions (e.g. Andersson & Philipov 2002; Gałężewska, Perelli-Harris & Barrington 2017; Thomson 2014) and salient groupings based on factors such as gender (e.g. Andersson, Thomson & Duntava 2017; Sobotka & Toulemon 2008) and social strata (; Härkönen & Dronkers 2006; Kalmijn 2013; McLanahan 2004; Perelli-Harris et al. 2010, Wood, Neels & Kil 2014) as well as descriptions of

entire trajectories of family related events (Elzinga & Liefbroer 2007; Van Winkle 2018). However, the answers to many basic questions, which cannot be answered by means of life tables and time series focused on family structures alone, continue to elude researchers (Billari 2009; Sweeney 2010). Some unresolved questions that are of significance to the present thesis include: How are dispositions towards family behavior shaped across the life course? Why do individuals form unions with others of equal social standing, education, cultural background and interest? How does fertility behavior respond to new technologies that change the conditions for work, parenting, householding and more? In fact, in contrast to popular beliefs about scientific progress, the issue of the role of ideational influences, agency and material pressures on family structure and fertility has not been resolved, but is still very much open to empirical investigation (Reher et al. 2017; Van Bavel & Reher 2013). The fact that we cannot account for such important phenomena with reasonable certainty is exciting in its own right. This is the main motivation for this dissertation and constitutes the overarching research project that the dissertation aspires to be a part of.

This introductory chapter situates the dissertation's empirical studies within this broader research project. The purpose is to facilitate the reader's critical assessment and appreciation of the three studies, as I make a case for their relevance and contribution to existing research. Some additional weight is given to literature that makes use of longitudinal individual level data. The two first sections are divided on the basis of common heuristics regarding constraints and ideational factors. I will begin by discussing technological innovation as an important variable feature in relation to constraints on family dynamics. I present empirical research on related topics and discuss how Study I in this dissertation contributes to this literature. I will then turn to the main lines of thought presented by population scholars regarding the ways in which ideational factors operate on demographic behavior. I close the section by locating Studies II and III within this branch of research and by making a case for their relevance and their contribution to the field. Thereafter I discuss data, methods, and research designs. I describe the data, the reasons for using them and briefly discuss similarities and differences in the general strategies employed in the three studies. This section also includes a discussion of the choice of Sweden as the setting for all three studies, and of the limitations and possibilities associated with research conducted using a single country research design. I close by summarizing the studies' main findings and contributions.

Structural factors, technology and demographic behavior

Changing constraints to family dynamics

In pastoral and agricultural societies, household structures adapted to the constraints of the soil and to the technologies of production that it afforded. In pre-industrial Northern Europe, grain output could not be increased without acquiring additional land. To do so, young adults moved out to work as farmhands in adjacent households and returned with capital and skills which, together with *inter vivos* and inheritance, formed the basis for establishing an independent household. This life course facilitated late marriage and fertility within neo-local households (Tsuya et al. 2010). Early population theories did not view technology as a variable but rather as a given, and considered late-marriage nuclear family systems primarily as a preventive check on population growth (Malthus 1798/1826). Boserup (1976) criticized the Malthusian model, suggesting instead that the pressure of population growth provides the necessary incentives for technological development. At an early stage, the needs of an ever-growing population may be met by expanding existing technologies. A larger population simply means more laborers that may, for example, increase the extent of forest-fallow cultivation. But once everything is burnt to the ground it becomes crucial to make more out of less, and to develop more intensive modes of production that increase production per unit of land.

Regardless of the causes of the agricultural and industrial revolutions, by the 1950s, people were entering marriage and reproducing relatively early. Some scholars have interpreted the baby boom, the post-war increase in nuptiality and fertility, as a result of the removal of constraints afforded by affluence in a culture in which resources and marriage were closely associated sequentially (Livi-Bacci 2017a; Van Bavel 2010). This argument holds technological innovation as the explanation, equating it with development in general. Other theories argue that specific innovations changed family structures. Greenwood and colleagues (2005) saw the early-marriage, high-fertility breadwinner regime as having been enabled by the spread of home appliances such as dishwashers and vacuum cleaners, which drastically reduced the amount of (household) labor per child.

Taking a rapid leap to the present day, demographic behavior is not balanced against subsistence needs such as food and shelter, but against higher

order needs.² One widely spread depiction of constraints to fertility and the structure of family units in the twenty-first century focuses on the gendered conflict between labor market engagement and child-rearing (Esping-Ander- sen & Billari 2015; Goldscheider, Bernhardt & Lappegård 2015; Stanfors & Goldscheider 2017). Women have joined men on a purportedly equal footing in the paid labor force, while men provide little additional labor in the house- hold (Evertsson & Neramo 2004). At the same time, the level of expected in- vestment in children is constant or increasing (Neilson & Stanfors 2018; Sayer, Bianchi & Robinson 2004). In most contexts, many women respond to the dual roles of care-taker and earner by avoiding or postponing parenthood (Goldin 2006). This conflict is believed to constitute an actual population level constraint that leads to below replacement level fertility rates, an aging society and ultimately, shrinking populations (Billari & Kohler 2004; McDonald 2000). It also impacts on family organization. Throughout the twentieth cen- tury, the household remained a central consumption unit, particularly for fami- lies that included dependent children, but providing for oneself also became a viable alternative for many (Sandström 2011). The alternative to coupled- dom and the lack of equilibrium in the division of labor created a constant tension between household formation and dissolution, setting the stage for unstable unions (Cherlin 2016). The structural shift towards less predictable employ- ment further increased the risks of union commitment (Mills & Blossfeld 2006). Interacting with these factors, the diffusion of effective contraception from the 1960s and onwards has shifted the control of reproductive timing to whoever has the mandate to make this decision (Bongaarts 1978). The drastic reduction of unwanted pregnancies meant that career investment was less risky. Moreover, delaying partnering in order to find an ever more appropriate match was now possible, which contributed to an increasing stock of potential partners among older age groups and pushed family formation to higher ages (Goldin & Katz 2002).

Another related development which imposes constraints on fertility and household formation in modern societies is the growth of secondary and post- secondary education (Kravdal & Rindfuss 2008). Educational enrolment and attainment is increasingly crucial to acquiring the human capital demanded by the labor market (Schofer & Meyer 2005) and is important to finding and be- coming eligible in the eyes of an agreeable partner (Oppenheimer 1988, 1994). In this context, it is rational to postpone commitment to a partner, household

²At the global level, the limits of population growth, consumption and technological innovation are still debated. (for outlines of different standpoints see Becker 2013; Lam 2013; Livi-Bacci 2017b).

formation and childbearing until one's education is completed. However, people age as they transition through higher education. This is believed to create a compressed space for fertility, increasing the age at first birth and increasing the likelihood of not achieving aspired-to parity (Balbo, Billari & Mills 2013; Ní Bhrolcháin & Beaujouan 2012, but see Tropf & Mandemakers 2017 for a critique and examination of possible confounding factors). This structural perspective was in part raised in polemics against a human capital approach that focused mainly on the increased opportunity costs of childbearing among the highly educated, turning the attention to the importance of the actual spells spent in educational enrolment as well as to the role of sequencing norms about the appropriate timing of parenthood and other socio-demographic events (Blossfeld & Huinink 1991). Moreover, the dual-earner model, coupled with the relatively high probability of union dissolution, means that men and, to a much greater extent, women, must be prepared for the scenario of having to independently provide both for themselves and for dependent children, making it ever more risky to reproduce before exiting the educational system. Thus in modern societies, labor markets, gender dynamics and educational systems produce constraints on family dynamics. These facts raise interesting questions for demographic and population scholars. Will changing conditions in the labor market and educational systems, or in the child-rearing infrastructure, also lead to adaptation and change in family dynamics? Variations in these conditions may be produced by policies that allocate resources within and between cohorts (Duvander & Johansson 2012; Gornick & Meyer 2008), by exogenous factors such as economic crises (Cherlin et al. 2013; Schneider 2015; Sobotka, Skirbekk & Philipov 2011) and also by technological innovations (Billari, Giuntella & Stella 2017). Here we focus on the latter, with a particular focus on Information Communication Technology (ICT).

Information communication technology and population processes

The output of future-oriented work that attempts to describe the consequences of ICT is enormous. Much of this work touch upon demographic behavior and family dynamics directly or indirectly. I will focus on research linking demographic behavior to specific ICT innovations and their endowments. Here, one common denominator is the focus on space. Often popularized using catchy terms such as the “death of distance” (Cairncross 1997), one important transformative thrust of ICT is the removal of proximity as a crucial factor for interaction, for actions, and for information flow. The idea is that with the use of ICTs, anyone can conduct tasks, work and communicate without giving

consideration to physical space. This view is particularly prominent in early reviews of the implications of the internet in general sociology (DiMaggio et al. 2001) and family sociology (Hughes & Hans 2001). Empirical studies do not support the idea that the importance of physical space is decreasing in all spheres of life (regarding social interaction, see Spiro, Almquist & Butts 2016), but there is a considerable literature that continues to maintain that the centrality of distance is diminishing as a result of ICTs.

Billari, Guintella & Stella (2017) suggest a tentative set of three palpable areas in which ICT is impacting on family behavior: partnering search, information, and work-life balance. Proceeding on the basis of this schema, I feel it is useful to distinguish two categories of research focused on the links between ICT and population processes. The first category of studies theorize about ICT as a medium and the ways in which it promotes the diffusion and dissemination of culture and information. The second line of research deals with the ways in which ICT transforms tasks, making them redundant or more efficient or flexible. Study I in this dissertation might be placed in this second category.

The link between population processes and ICT as a medium is really a progression from the tradition of studies of older media. Faria and Potter (1999) have argued that Mexican telenovelas – which portray two child households – are popularizing this family structure among poor families in Brazil and reducing fertility (see Jensen & Oster 2000 for a similar argument in India). Similarly, individuals in developing countries that are exposed to Western culture via a range of media are thought to associate everyday family lifestyles with the idea of modern development and affluence, triggering a convergence with the West, as seen in areas such as a decline in arranged marriages (Allendorf & Thornton 2013) and later ages at first birth (Abbasi-Shavazi et al. 2012; Thornton 2001; Thornton et al. 2012). Diffusion is not only occurring at the level of the global North/South. In the US, Kearney and Levine (2015) argue that the reality show *16 and pregnant* – which portrays the drudgery of teenage motherhood – led to teens deliberating more about their sexual behavior and contraceptive use. Also in the US, Guldi and Herbst (2015) report that teen fertility is negatively associated with local broadband rollout, arguing that this is due to access to information about sexual behavior.

On top of the transmission of values and ideals, the pure sharing of information may also be of consequence. Billari, Guintella and Stella (2017) argue that one such consequence pertains to partner matching. Rosenfeld and Thomas (2012) show that the traditional venues for meetings have all lost ground as more people meet on dating sites, particularly among those whose

marriage market is small. Research on assortative mating online (Potarca 2017; Skopek et al. 2011) is now empirically testing the hypothesis that online partnering searches provide information efficiently, which speeds up the partnering search process and improves matches (cf. Oppenheimer 1988; Rosenfeld 2017). In some studies, broadband rollout has been found to be positively correlated with fertility (Billari, Guintella & Stella 2017) and marriage (Bellou 2015). These authors speculate that the findings are the result of internet-based services, which alter constraints and opportunity structures by enabling flexible work or efficient partnering search. These studies highlight the partnering process as the venue by which ITCs impact on family dynamics.

A growing body of research is looking at how ICT is used for interactions between family members. For example Chesley (2005) and Chesley & Johnson (2014) has studied relationships of support between aging parents and their adult children and Madianou (2012) has described how mothers use ITC to raise dependent children at a distance, with consequences for how families are structured spatially.

Research gap and contribution of Study I

There is now literature that theoretically situates the link between ICT and demographic behavior, arguing that ICT affects demographic behavior by changing opportunity structures. However, the literature reviewed above does not usually measure the actual usage of technology at the individual level (Bellou 2015; Billari, Guintella & Stella; Guldi & Herbst 2015; Kearney & Levine 2015). Rather, stories about how people use ITC are linked to a general measure of exposure to internet access, usually in the form of broadband rollout. Studies that do observe the use of technology, on the other hand, are often unable to relate this usage to variability in demographic outcomes, and the research designs are such that there is no comparison group that does not use the ICT in question (Chesley 2005; Chesley & Jonsson 2014; Madianou 2012). With the exception of the online partnering literature, then, there is almost no research that demonstrates empirically whether the individuals who are assumed to be affected by ICT actually make use of it. Furthermore, while the ‘death of distance’ thesis is applied to work-life and family relations (cf. Billari, Guintella & Stella 2017; Madianou 2012), it has not been linked to education-family relations. This is surprising given the very substantial literature on the centrality of educational systems for fertility and age at first birth that was discussed earlier (Balbo et al. 2013; Kravdal & Rindfuss 2008; Ní Bhrolcháin & Beaujouan 2012; Blossfeld & Huinink 1991).

In Study I in this dissertation, I argue that the educational domain has become more flexible as a result of ICT and that this may alter the relationship between education and fertility. Higher education is a pivotal societal institution which structures the process of fertility. Traditional enrolment and parenthood are temporally divided by the physical distance between home and campus. I measure the impact of ICT on education in the form of the individual level usage of ICT: enrolment in online distance tertiary education. Online enrolment may be pursued from home, often at any time of the day, which avoids the need for relocation to university towns. Study I shows that one consequence of this flexible study format may be increased student fertility and, as a consequence, a more rapid transition to parenthood. I find that online students are more likely to become parents than students attending brick-and-mortar campus-based studies. I argue that individuals who seek to become parents and to acquire education at the same time strategically self-select into online education. It is, furthermore, possible that the features of distance platforms also result in pro-natal decisions. Study I highlights what may well be a very relevant facet of ICT, since the provision of online distance education is increasing dramatically (Allen & Seaman 2013; Amneus 2011; Swedish Higher Education Authority 2017). The study also makes a theoretical contribution by noting that the sequencing of life course phases (education, labor market establishment, and reproduction) can become intermingled as a result of ICT: A fruitful way of thinking about technology and family dynamics may be to ask a question such as: What innovations would change the sequential order of, or cause overlap between life course domains.

Ideational factors in family dynamics

Values and attitudes

The previous chapter highlighted how opportunity structures in modern society, exemplified by the competing interests of work and ‘family life’, exercise constraints on demographic behavior. It also showed how new technologies may enable change in demographic behavior by sidestepping these constraints. What was not discussed was the distal foundations underlying this: Why, for example, are highly educated women under more pressure than men to choose between parenthood and careers? Recent explanations for current family structure and fertility envision an additional transitional stage (Esping-

Andersen & Billari 2015) or a “second half” of the gender revolution (Goldscheider, Bernhardt & Lappegård 2015) whereby increased male input in household activities and childrearing will lead to more stable unions and to replacement fertility rates. This shifts the focus toward gender roles, values and attitudes. But it also begs the question of why we see variation in this variable between countries and social groups, or why we should expect a convergence towards equity, other forms of value regimes. To give another example, why, when individuals are not completely financially dependent on their partners, are singlehood, separation and divorce a ready option for some but not for others? To answer such questions it is quite common to turn to ideational explanations.

William J. Goode asserted that the economic order of industrialization would standardize family patterns from the 1950s and onwards and that values favoring nuclear families would arise in line with this process. In the modern economy, the nuclear family provides geographically mobile and efficient labor that is unrestrained by kin and filial ties (Goode 1963). As has been noted by Cherlin (2012), such explanations were congruent with the functionalist and modernization explanations of the time, explaining the breadwinner model by reference to values as constituting the means to societal-level ends.

Later thinking on the ideational antecedents of family demographic behavior highlighted agency and individuality, again in reference to a notion of modernity (Inglehart & Baker 2000). The idea emerged that family formation and fertility became one of a number of means to self-realization (Aries 1980), as also suggested in the theory of the second demographic transition (SDT) (Lesthaeghe & Surkyn 1988). The relative affluence achieved by late modern Western societies had satisfied the basic Maslowian needs and instead non-material needs, such as autonomy and happiness, had come to drive fertility and partnering behavior (Lesthaeghe 2010). Contemporary individualization theorists saw the voluntary, expressive and unstable nature of couple relationships as characteristic results of a focus on life projects, and as an additional source of the risk and uncertainty that permeated late modernity (Beck-Gernsheim 1995; Giddens 1992). Regardless of whether the internal state of individualism had originated from universal human needs, life projects or prescribed norms, it could not be entirely pursued within the mid-century family system, which included the framework of the compassionate, life-long commitment marriage (Cherlin 2004, Heuveline & Timberlake 2004). SDT theory suggests that, as a result of this, individuals began carving out space for themselves by (increasingly) divorcing, postponing parenthood, and engaging in serial partnering and in sexual activity that was detached from the normative

and sequentially linked institution of marriage: in short, there was a transition into a new, heterogeneous family regime.

SDT theory does not reject structural and historical developments such as the contraceptive pill and female labor market participation, and empirical support for the link between post-modern values and new family regimes is mixed and relies heavily on cross-sectional data (Zaidi & Morgan 2017). Regardless of this, however, ideational factors are considered a necessary condition for family change by the research field's most influential theories and much empirical work on family structure employs measures of attitudes or values as predictors, or assumes the presence of consequential ideational factors (Johnson-Hanks 2008; Pollak & Watkins 1993). Many ideational constructs are based on questionnaire items or composite measures of surveyed attitudes, and their theorized effects are often conceptualized as prescriptive norms or general value contexts (Hitlin & Piliavin 2004; Liefbroer & Billari 2010; Marini 1984). The empirical studies in this dissertation engage with ideational factors primarily at the level of individual attitudes and preferences.

Attitudes are often related to, and co-vary with, cultural notions about prescribed or appreciated forms of conduct relating to the family and reproduction (Treas, Lui & Gubernskaya 2014). However, attitude measures focus on specific actions/behaviors related to family organization, such as divorce, rather than on abstractions such as values about independence or tradition (Bohner & Dickel 2011, Rokeach 1973). Attitude items or vignette responses are not necessarily related to macro constructs such as value-regimes (see for example the debate on male gender attitudes and fertility in Goldscheider, Olah, Puur 2010; Puur et al. 2008; Westoff & Higgins 2009). In one commonly applied model of the attitude-behavior relationship in family demography, attitudes are conceptualized as a part of a subjective rational positioning³. Attitudes emerge from beliefs about the subject of interest and beliefs about the consequences of a behavior. Attitudes, in conjunction with perceived norms and perceived and actual behavioral control, produce intentions to action (Ajzen & Klobas 2013). While attitudes are not strictly equated with a benefit/cost calculation towards a behavior in this framework, it has a utility-based nature. This quality offers an explanation for why, for example, women are found to be more sympathetic to traditional lifelong unions in contexts where divorce and single parenthood imply poverty and adversity (Rijken & Liefbroer 2012). Here, attitudes mainly have a cognitive component, focusing

³ Sometimes this framework is discussed as the Theory of Planned Behavior, Theory of Reasoned Action or, most recently, The Reasoned Action Approach.

on beliefs and consequences of behavior. Attitudes, however, are often recognized to also have an affective, or emotional, component (Morgan & Bachrach 2011; Verplanken, Hofstee & Janssen 1998).

A recent application in demography acknowledges the rational utilitarian component, but also considers ideational factors developed across the life course, and attempts to incorporate cognition, emotion and culture (Bachrach 2014; Johnson-Hanks et al. 2011; Morgan & Bachrach 2011; see also Liefbroer and Billari [2016] for a recent examination of the relationship between affective attitudes and family behavior). This framework also recognizes that predispositions develop over time as individuals face novel choices and experiences, and they are often influenced by and need to fit into existing schemas (Sewell 1992). Since family dynamics events are fairly rare, and since they unfold over a long period of time (e.g. in the form of co-habitation and parenthood), people will show ambivalence or indifference in their predispositions. One factor that is of importance to measurement is the issue of whether attitudes are often constructed when an individual is prompted to formulate an idea (Twersky & Thaler 1990) rather than being drawn from a ready and transitive list. One implication of this reasoning is that ideational factors are meaningful but need not be predictive of family dynamic behavior as captured by survey responses (see for example Ní Bhrolcháin & Beaujouan 2015 for a discussion regarding numeric fertility intentions and fertility).

Attitudes to divorce

The study of divorce attitudes and sentiments about non-marital family organization provides an illuminating example of the role of ideational factors in population processes since the occurrence of divorce and separation increased dramatically in the Western world during the twentieth century (Van de Kaa 2001). The items employed to measure such attitudes vary across surveys, but most include questions that aim to differentiate between individuals' general acceptance of divorce and separation in society on the one hand, and their support for the feasibility, often with consideration given to dependent children, of dissolving parental unions (e.g. Liefbroer & Billari 2010). Overall, tolerance towards divorce is one of a number of attitudes that is viewed as reflecting so-called post-modern values (Inglehard & Baker 2000), which are theoretically linked to new family forms (Surkyn & Lesthaeghe 2004), and it is therefore often studied as an empirical test of SDT theory.

When comparing countries and regions, divorce rates and attitudes towards divorce in developed countries are relatively strongly correlated (Yodanis

2005) and individualism and economic development are generally associated with tolerant attitudes towards divorce (Toth & Kemmelmeier 2009; Gelissen 2003). Post-modern values, non-conformism and secularization (Bystrov 2014; Lesthaeghe & Lopez-Gay, 2013; Wagner & Weiß 2006), of which attitudes towards divorce constitute a part, are related to divorce and non-traditional family forms. Some evidence indicates that this is also the case for trends over time (Lesthaeghe & Surkyn 2004).

There is little historical data on the development of attitudes specifically towards divorce. The most comprehensive sources of information are the US panel surveys. The US saw a general increase in approval for divorce from the 1950s to the 1960s, with it then stalling at a relatively high level in the 1980s, with four-fifths considering divorce when children are present to be an acceptable option (Thornton & Young-Demarco 2001, Thornton 1985), although there is some evidence of a return to more hesitant attitudes by the end of the millennium (Martin & Parashar 2006). In Europe, the last decades have seen a leveling-off of general support towards divorce at fairly high levels in the North-West, but with substantial differences in other regions (Rootalu 2018). Between 1994 and 2002, acceptance for divorce increased across Europe and remained at high levels in North-Western Europe (Liefbroer & Fokkema 2008).

The relationship between divorce attitudes and individual characteristics has been thoroughly studied in recent decades. Migrants and the children of migrants from countries with low divorce rates or high scores on measures of traditionalism have low divorce rates in less traditionalist receiving countries, which suggests that sentiment impacts on behavior net of societal level contexts (Furtado et al. 2013). Men, individuals from older cohorts and individuals who lack a university education are somewhat less tolerant towards divorce (Trent & South 1992). Parental divorce is related to more tolerant attitudes towards divorce (Cunningham & Thornton 2006; Axinn & Thornton 1996), and parental attitudes towards divorce are also transmitted to the next generation⁴ (Cunningham & Thornton 2006; Kapinus 2003). These discrepancies in attitudes based on social origin and position have been suggested to reflect both cultural differences between social strata and structural causes of divorce attitudes (Moors 2000). Moreover, factors may be associated with a high di-

⁴ Both these factors are likely to contribute to the strong intergenerational transmission of divorce behavior (Dronkers & Härkönen 2008; Gähler, Hong & Bernhardt 2009).

divorce risk and still correlate with factors that are associated with a low tolerance for divorce, as in cases where religiosity and poverty are correlated with one another (Glass & Levchak 2014).

In discussing the role of individual attitudes and values across the family life course, Lesthaeghe and Moors (2000) argue for a so-called recursive model. Here, values and attitudes are viewed as causing a selection process that sorts individuals into different types of family trajectories. Attitudes are, in turn, sufficiently plastic to be changed by these trajectories themselves. Experiences of divorce and cohabitation are correlated with change towards more tolerant divorce attitudes (Amato & Booth 1991; Cunningham & Thornton 2006) whereas parenthood and marriage are correlated with change towards less tolerant attitudes (Moors 2000). Such attitude changes provide support for the idea of a general recursive relationship between values and behavior at the individual level (Lesthaeghe 2002; Moors 2003).

Research gap and contribution of Study II

Attention has long been directed at the social differentiation of family organization. Bernard (1982) has argued that experiences of the family domain are so different by gender that it is reasonable to talk about “his” and “her” marriage and “his” and “her” divorce. Here, attitude change may itself be interpreted as a preference that arises from the experience of divorce. For example, cross-sectional studies have found that separated women are more tolerant towards divorce than separated men (Kapinus 2003, Kapinus & Johnson 2002). However, it is unclear whether this correlation signifies a stable trait among women who tend to divorce or gendered attitudinal responses to divorce in general. Also, it is unclear how to interpret attitude changes that differ between groups.

In Study II in this dissertation I use longitudinal data to examine whether men and women differ in their attitudinal response to family events (Anderson 2016). Here I argue that gender specific effects of family events may reflect that unions and parenthood involve qualitatively different experiences for men and women respectively. Drawing on expectancy/values models (Ajzel & Klobas 2013), I assume that attitudes reflect personal assessments of the utility or agreeableness of the object (i.e. divorce). If this is the case, I argue, then differentiated attitude change that is related to some event may indicate differences in the utility of this event for different groups. If women change their attitudes and become more positive towards divorce but men do not, this may be indicative of women gaining more from leaving unions, either

because they get less out of the union or because they cope better afterwards. I find that men do not change their attitudes towards divorce following divorce whereas women become more tolerant towards divorce. Study II draws attention to the fact that the object of an attitude (e.g., unions and divorce) may be different for different social categories (e.g., men and women). Hence, group differences in experience-based attitude change may provide a means of indirectly testing the hypothesis about group differences. This rationale is not novel but rather rooted in cross sectional family dynamics research, e.g. in the form of studies on how differences in divorce attitudes across social strata (Martin & Parashar 2006) and across countries (Rijken & Liefbroer 2012) are associated with the benefits of marriage and the risks entailed by divorce. At the same time, however, inferring conditions from individual attitude change in this way represents a step away from treating attitudes as a reflection of values and towards treating attitudes as a reflection of individuals' subjective assessments of their life chances.

Preferences in partner choice and assortative mating

Many of the ideational variables discussed thus far have, in one way or another, been based on individuals' survey responses. The most commonly applied and probably the most apparently intuitive approach, however, is to conceptualize ideational variables as preferences inferred from observed behavior within constraints (Grüne-Yanoff & Hanson 2018). These preferences, in turn, may be connected to adherence to value regimes, material or other theorized sources of utility. For example, the gender value-regimes of premodern societies have not of course been directly surveyed. However, in historical populations, when female infanticide leads to skewed sex ratios (or is observed in individual level data) researchers treat this as indicative of a patriarchal culture with preferences for male offspring (Tsuya et al. 2010; see also Sandström & Vikström 2015 for a discussion of historical gender preferences and values in Europe).

Partnering studies tend to search for individual preferences for one alternative over the other (Gullickson & Fu 2014) and therefore provide a suitable basis for discussions of preferences.⁵ Here, the focus is on the possible mechanisms underlying preferences for partner similarity.

Popular understandings of romantic relationships sometimes include the notion that opposites attract. The scientific literature to date does not support

⁵ There is of course also a substantial body of literature that employs survey items to measure preferences (Buss 2001; Fletcher et al. 1999).

this notion. Instead, homogamous mating has been documented in relation to socioeconomic position (Blossfeld & Timm 2003; Dribe & Stanfors 2017; Ermisch et al. 2006; Hout 1982; Mare 1991, 2016; Schwartz & Mare 2005; Smits & Park 2009), social origins (Mäenpää & Jalovaara 2015), ethnicity and religion (Blackwell & Lichter 2004), age (Poppel et al. 2001), cognitive traits such as intelligence (Bouchard & McGue 1981), physio-metrics such as height (Silventoinen 2003), childhood family structure (Högnäs & Jason 2016), political orientation (Watson et al. 2004), and type of humor (Priest & Thien 2003).

The interpretation of patterns of similarity in socioeconomic position pulls in two directions. One of these directions assumes that all individuals find universal utility in their mates having a high socioeconomic position. High income, education and wealth are favored. Given imperfect information about partners and the uncertainty of success in partnering, an acceptable threshold for a partner is set at some point along the spectrum of socioeconomic positions. This preference is expected to guide partner choice in a competitive setting within the restricted pool of eligible candidates in the marriage market (Blossfeld & Timm 2003). Another line of research highlights homophily (McPherson et al. 2001). Rather than homogamy being the result of a race to partner with the highest ranked candidates, this line of research views it as instead being produced by a preference for traits resembling one's own. Kalmijn (1994) has noted that educational level correlates strongly with taste and with common topics of discussion. He therefore argues that preferences for partners may involve a process of both matching on traits and competition for traits. People may sort on horizontal matching traits (e.g., music, humor, common frameworks of understanding) and on competitive traits that are vertically organized on the basis of a universal ranking (e.g., income, earnings potential).

It is an ongoing challenge for research to tease out the relative importance of matching and competition mechanisms for partnering and assortative mating. Some studies have tested the matching hypothesis by relating couple composition to union stability. If educationally similar unions are less fragile than heterogeneous unions at each level of education, this provides indirect support for the matching hypothesis. Educational homogamy does seem to impede divorce somewhat (Schwartz 2010), but the most prevalent pattern found in recent cohorts is that the resources of either spouse are positively correlated with union stability (Lyngstad & Jaloovara 2010).

One way to test the salience of competition for resources is to compare assortative mating in contexts in which the importance of income as a posi-

tional good varies. There is some evidence that high levels of societal inequality produce homogamy, indicating a preference for competitive resources in contexts in which stakes are high and there is much to be gained (Fernandez, Guner & Klowles 2005). Women's earnings capacity was increasingly valued by men across the twentieth century (Buss et al. 2001) and the predictive power of women's earnings (Sweeney 2002) on their spouses' earnings has increased. This indicates that preferences for competitive resources have increasingly guided both men and women following the shift to a dual-earner economy.

Research gap and contribution of Study III

A different branch of the literature has attempted to go beyond the descriptive studies referred to above to actually distinguish the mechanisms of matching from those of competition. Recent studies that use online settings have the advantage of being able to observe similarities in resource-competitive and non-competitive characteristics, and have found both matching and competition to be important (Skopek et al. 2011). Kalmijn (1994) operationalized similarity and resource qualities directly, measuring correlations in partner dyads along the dimensions of culturally and economically distinguishable social positions. The study found the strongest correlation for assortative mating on matching for cultural traits, which supports the matching hypothesis. In a longitudinal setting, DiMaggio and Mohr (1985) have shown that the level of refinement in cultural interests is correlated with the educational level of future spouses.

One problem with the described studies is that distinguishable socioeconomic positions and 'taste' are highly correlated and that measures are likely to pick up unobserved elements of both. In order to partial out any correlation between competitive resources and non-competitive similarities in couples, Bruze (2011) has investigated the educational assortative mating of Hollywood movie stars. Matching traits seem to matter even when an abundance of wealth erodes the need for financial resources, since the economically independent actors were found to match on educational level. This speaks in favor of an effect of similarity that exists above and beyond competition for resources.

With the exception of Bruze's (2011) study, semi-experimental designs have not often been applied to this topic. Study III in this dissertation provides a further exception. Here I measure the impact of extended tertiary preparatory

education among vocational students on having one's first child with a university-educated partner (Andersson 2018). I use data which have some rare beneficial properties in this respect. A national reform introduced in 1991 extended the availability of vocational upper secondary education with a tertiary-preparatory content. This change was preceded by a pilot program in which a representative sub-population of upper secondary schools across the country introduced the new curriculum, while others did not. Under certain assumptions, this provides an opportunity to differentiate between cultural and socioeconomic resources in an otherwise similar population. If the tertiary-preparatory education did impose sociocultural traits associated with higher education on the exposed pilot vocational students, then this group should have been more likely to partner upwards, according to the matching hypothesis. However, no such difference between the pilot and control groups of vocational students were found in the likelihood of partnering with a university-educated partner. This was true for women and men alike. The results suggest that formative aspects of education, their liberal arts content, matters little for assortative partnering when competitive resources are constant. This could indicate that when push comes to shove, people hold a preference for the actual resources tied to education rather than their liberal arts content. In contrast to Bruze (2011), the study also measures a reasonably generalizable situation. This study contributes to the literature on assortative mating by offering a novel way to indirectly observe a mechanism that is believed to drive partnering preferences

Data and research design

Data

For Studies I and III in this thesis, I use the STAR (Sweden in Time: Activities and Relations) data set. STAR is a linked array of administrative registers. The registers are generated by various independent authorities for purposes other than research and then assembled by Statistics Sweden. The STAR database has compiled bits and pieces of these data for scientific purposes (Statistics Sweden 2015).

Register data are a product of administrative bodies outside the research domain. When used for the purposes of research, they are sometimes messy, since the information is fragmented, and its internal logic is unrelated to researcher's goals, in contrast to surveys or laboratory designs. In this respect,

registers share many features with so called ‘big data’ such as can be extracted from social network platforms or the client registers of commercial organizations (Connelly et al. 2016). There are important differences however. First, registers are systematic or semi-systematic, meaning that the data are purposefully collected to be comparable, often using comparable units (such as individuals, regions, monetary and geographic metrics), and to cover a specific scope (one may attempt to gather data on *all* units rather than those who show up as users of a given service). Second, registers are reproduced continuously in a somewhat predictable manner (data collection becomes path dependent, or consideration is at least given to the issue of comparability with previous records, which is not the case with automated recording). Finally – in contrast to data extracted from social media or consumer databanks – the total study population is (most often) known. Therefore, issues about selection bias are most often not of major concern. Nor is there a concern about making type II errors or about having insufficient power to detect true effects.

Vital statistics from Swedish registers include every resident born since 1932, with the exception of individuals born from 1932 onwards who died prior to 1961. Residents born in 1932 and later can be linked to their parents via unique civic registration numbers. From 1968, a number of administrative records can be linked and provide information on, e.g., education, civil status, taxes and incomes. Censuses conducted at five-year intervals between 1960 and 1990 (Statistics Sweden 2016) provide additional information on e.g., housing, occupation, and household composition.

Both Studies I and III single out individuals who have at least one child. Childbearing partners are identified via marriage or via their focal child. The co-resident status of parents (separated or cohabiting) is identified via co-residency. Couples with shared biological children who share a residence are treated as intact couples, and as separated from the time of the first year during which they are observed to have been living in separate dwellings (Thomson & Eriksson 2013).

In Sweden, where most marriages are preceded by cohabitation (*samboende*) and only about one-third of cohabitations are transformed into marriages within ten years (Andersson et al. 2017), cohabiting status has an ambiguous meaning (Heuveline & Timberlake 2004), ranging from partners sharing their housing, through trial marriage, to permanent and heavily invested-in unions (Holland 2013). Cohabiting unions that are formed and dissolved without resulting in common children are not observable in the registers prior to 2012. This is a limitation of the material and has directed many of the

choices made in terms of research design and the research questions examined in this dissertation project.

Study II is based on the Young Adult Panel Study (YAPS) and follows a sample of 3,500 men and women born between 1968 and 1980 over three waves: 1999, 2003 and 2009 (Bernhardt & Goldscheider 2006; Kaufman, Bernhardt & Goldscheider 2017). Observing the respondents as they enter parenthood and the prime ages of childbearing and family formation, the survey items focus on intentions, orientations and attitudes towards family life, working life and gender ideologies. As data from vital statistics registers are also included, YAPS provides the primary source of data on the relationship between attitudes and demographic behavior in Sweden. While there are alternative sources of perhaps more extensive data on attitudes and norms, these are often cross-sectional in nature, such as the World Values Survey. The longitudinal structure of YAPS was ultimately the strongest motivation for its use in the current study.

Research design

All three studies in this thesis take a longitudinal, individual level perspective, but use somewhat different approaches. The research questions also motivate different kinds of modeling, and different claims about causality are made when interpreting the results.

The choice of sample and the structure of the data set are different in all three studies. In Study III, the explanatory variable is the status of either pilot program or non-pilot program enrolment within the same enrolment cohort. The most natural strategy was therefore to conduct intra-cohort comparisons. Study II follows individuals from different cohorts across chronological age. Individual life course variation is the focus rather than period or trends. In Study I, childless women of childbearing age are observed within a set period window, which was dictated by the expansion of distance education.

The estimations and inferences that are drawn also vary between the studies. In Study I, the issue at hand is whether women are more or less likely to have a first birth under specific conditions which vary over time, such as when the women are or are not enrolled at university. More specifically, I want to show the relationship between distance study enrolment and duration and a woman having a first child. I use survival models since they provide information on time specific hazards, and are also an efficient means of modeling the effect of a social status (such as enrolment) that changes over time. The hazard ratio shows the change in probability, readable as percentages, of an

event during a specific time period. The inference is limited to a suggestion about plausible processes and a description of the relationship between online education and fertility. The hypotheses and findings are congruent with both a selection into online education based on fertility intentions and a story in which the features of online education impact on fertility intentions and behavior, and the study is designed to isolate these mechanisms.

In Study II, I am interested in how movement on an attitudinal scale over time is affected by discrete experiences, such as divorce, that occurs between specific measurement points. I compare estimates from standard OLS regressions with regressions estimated using individual fixed effects (FE). In the FE model, the impacts of observed and unobserved constant individual characteristics are removed. The model therefore estimates the impact of family events on attitude change net of the effect of underlying traits that determine both family events and attitudes. This strategy allows for a comparison of FE and OLS estimates that can be useful for inferring any effect of selection. This is not an attempt to achieve a design with qualities similar to randomized events of divorce/marriage. Rather, it is thought to improve on previous research only by addressing the specific form of endogeneity produced by unobserved time-constant individual traits that may impact on changes in the observed family events and also on attitude formation.

In Study III, partnering (identified via childbearing) is the outcome, but the time to the event is not of interest. Here the analyses employ logistic regression and Linear Probability Models (LPM). Compared to the other studies, Study III has a stronger emphasis on hypothesis testing about a causal effect. Although the impact of pilot program participation on the individual's likelihood of having a first birth with a university-educated partner is of interest, having chosen the pilot program is likely to be correlated with unobserved traits that also impact on assortative partnering. Therefore, pilot participation is instrumented by the change in the percentage point coverage of the pilot scheme between time-points within municipalities. The estimates are intended to show the causal effect of pilot participation on assortative partnering for those who enter the pilot program but would not have done so if there were, on the margin, fewer pilot programs on offer at the time and place of enrolment – in other words, those who have possibly not chosen the pilot program for any particular reason other than its availability, and who are therefore less likely to be very selected on traits correlated with pilot choice and assortative partnering. This design does not perfectly mimic randomization into treatment. On the other hand, it does represent a scenario in which substantial random entry into treatment is plausible, and this in a study field that rarely offers

such opportunities other than in laboratory designs and in which ecological validity is crucial.

Drawing conclusions from the study of family dynamics in Sweden

Understanding how individuals respond to different contexts most likely requires comparative work on family demographics (Huinink & Feldhaus 2009). However, unaccounted for historical trends and regional level factors always involve a risk of obfuscating research when individuals from different contexts, cohorts or periods are compared. In this dissertation project, the historical, social, and geographical context is less heterogeneous, since all the empirical studies center on modern day Sweden. Single-region inquiries can achieve focus and depth and corroborate and complement cross-country studies. At the same time, it also becomes more difficult to generalize from any patterns that may emerge and from the explanations provided for these patterns. Which characteristics of demographic behavior are specific to Sweden, and which are not?

Young people in Sweden leave the parental home relatively early, and do so uniquely often to live in an individual household (Strandh & Nilsson 1999; Tosi & Gähler 2016). It is distinctive for Scandinavian countries that both cohabitation, with and without children (Liefbroer & Fokkema 2008), and divorce are accepted (Rootalu 2018). Cohabitation and out-of-wedlock birth is very common (Kalmijn 2007), although levels of divorce and single-parent households do not stand out by comparison with several other Western countries (Andersson & Philipov 2002). Complex family forms such as stepfamilies and blended families, along with multiple-partner fertility, are common but not exceptionally so in an international comparison (Thomson 2014). Whereas the total fertility rate is relatively high in Scandinavia in comparison to other developed countries, the age at first birth is neither particularly low nor high (Andersson et al. 2017). Historically, Sweden has displayed a comparably relaxed attitude towards non-traditional family behavior, with an early onset of cohabitation and out-of-wedlock births and the early adoption of no-fault divorce laws (Oláh & Bernhardt 2008). The Scandinavian countries have a strong contract between state and individual, rather than state and family, with individualized taxation and pension schemes (Rindfuss et al. 2010). Sweden has extensive state-run and state-sponsored childrearing services, universal access to daycare, extensive parental leave and low-cost healthcare and elderly care (ibid.). Swedish policy has a programmatic goal of promoting

gender equality, the airing of feminist and emancipatory agendas is relatively uncontroversial, female labor market participation is high in all socioeconomic groups and paternal childrearing is encouraged in the public discourse (Melby & Wetterberg 2009).

Above and beyond statistics, there are at least two widespread radical narratives about Sweden and Scandinavia. One maintains that the functional role of the family institution, as well as the functional role of fixed gender relations, has ended in Sweden. The normative sanctions that come with the traditional roles guiding provision for children, the elderly and partners, are weak: individuals, not couple units, care for the young, no one cares for the old (Popenoe 1991). The other narrative maintains that independence leads to strong family bonds, but that these emerge from the pull of desire rather than the push of necessity (Sandqvist, Andersson & Popenoe 1992). Spouses need to commit continuously; there is no single moment that settles the deal, which results in honest and attentive relationships. Marriage or parental cohabitation may be temporary, but the fact that both men and women are expected to stay connected post-separation via their shared role as parents, makes the family bonds even stronger (Berggren & Trägårdh 2015). Both these perspectives present problems for this dissertation. If Sweden, for example, is a uniquely socially engineered petri-dish of residents to whom the concepts of filial bonds or traditional gender roles are alien, then one should be careful in extrapolating any results to other contexts. Testing general hypotheses about antecedents to family processes in Sweden would primarily be of ethnographic value unless pursued in a case study or comparative perspective. However, there are arguments against both narratives.

It is true that Swedes have a flexible approach towards the traditional family forms of the mid-twentieth century. Then again, the decade or so that separated Scandinavia (and the Netherlands) from other European countries regarding the ongoing move to post-materialistic values has passed and late modern attitudes and behavior have emerged in many other places (Lesthaghe 2010). It is true that the institution of marriage is less prominent in Sweden than in many other countries, yet more than half of cohabiting unions shift into marriages (Heuveline & Timberlake 2004) and just as in other Western countries, divorce risks are greater in cohabiting unions. Furthermore, recent research has questioned the importance of individuality and independence, as portrayed in depictions of Swedish society, and whether they actually impact on intimacy and family formation (Jamieson 1998). Investment in pro-natal and pro-dual earner redistributive policy is undoubtedly very large. However,

political reform has its limits. When there were plans to introduce an individualized general parental leave scheme, reformers withdrew their support. Moving the choice regarding care provision from the family unit to the individual proved too radical (Berggren & Trägårdh 2015). Even with extended social security, reproductive/family behavior has consequences. Financial stability is still central to family formation, having children and particularly many children is quite costly, a view that is expressed also by Swedes prompted to elaborate of their prospective fertility and family behavior (Brinton et al. 2018). In sum, while keeping contextual differences in mind, the conclusions drawn from this thesis may be applicable to research on family dynamics that extend beyond the Scandinavian experience.

Concluding remarks

In the introduction to this chapter I argued that partnering, separation and fertility both shape and reflect modern societies and that the goal of my dissertation is to better understand the antecedents of such family dynamics. Does this dissertation answer previously unaddressed issues, and in such a way that it advances our understanding of the antecedents of family dynamics beyond mere description? I have problematized the role of attitudes for family dynamics by showing that attitudinal changes can differ for men and women respectively. I have questioned the assumption that partnering composition results from tendencies towards homophily, at least in the case of educational homogamy in an otherwise fairly homogenous population. And I have shown that Information Communication Technologies (ICTs) may impact on fertility behavior via the educational system.

These results represent novel findings. This, however, does not by definition mean that they fill a research gap. Indeed, back in my master's course on scientific writing I was taught that the phrase 'little is known' was overused and also almost always untrue, as a great deal is known about most things, including the topics in this dissertation. In response, I would argue that this thesis brings added value to existing research in meaningful ways. It has been shown that marriage and divorce are gendered experiences, and reciprocal relationships between attitudes and family behavior have been studied. Study II, however, brings more focus and attention to the gendered aspects of attitude change. The difficulties of combining childbearing with studies are fairly well established, but Study I shows how this relationship may materialize in the

context of emergent ICTs. Social scientists are well aware that partner preferences are difficult to disentangle, and a range of empirical studies support the notion that both resource competition and homophily are active mechanisms in partnering. However, Study III is one of few that examine a commonplace scenario, with high ecological validity, in which these mechanisms can, plausibly, be operationalized. In all three studies, moreover, the size and precision of the data sets provide findings with high levels of reliability in comparison to much of the previous work.

Scholarly journals and other outlets sometimes maintain that advancing theory or providing new perspectives are a prerequisite for any piece of research claiming to constitute a contribution. Besbris and Khan (2017) argue that a more productive (and forgiving) contribution-benchmark is that the research encourages contemplation of and adds future directions to existing theoretical frameworks rather than necessarily producing new ones. In this regard, a number of take-home points have emerged from this dissertation which may be of interest for the purposes of reflection and for posing new research questions. I believe that more emphasis should be placed on coming to grips with how and whether individual dispositions change across the life course. A framework for such projects should be attentive to the opportunities and risks that come with the demographic behavior that the projects relate to. Ample hypotheses could be formed by considering the social positions of subgroups, as is currently done in cross-country comparative research (cf. Rijken & Liefbroer 2012). Moreover, there is no point in tilting at windmills. It is within the reach of existing panel data to establish not only directional patterns of attitude and value change across the life course, but to settle the question of whether there is any substantive variability to begin with. In Study II, I comment on the relatively minor attitude shifts identified by the analyses, and the absolute prevalence and size effects of attitude change should be given critical scrutiny in further research.

To grasp patterns of partnering such as educational assortative mating, empirical work can do more to contrast different dimensions of education (such as formative content, human capital, socializing and life-course structuring aspects) and problematize what is actually implied by the causal chain of educational attainment-sentiment-partnering. Identifying situations in which these dimensions vary in combination is a way forward. In particular, it seems to me that in order to reduce complexity, the causes of assortative mating mechanisms should increasingly be studied among targeted rather than general populations, and in theoretically motivated sub-phases of the life course.

Thinking about the impact of new technologies on family dynamics should begin by recognizing the basic preferences of individuals and the constraints to which they are subject. In the case of most developed countries, universal access to participation in working life seems by and large to be enjoyed by many, and in modern economies there seems to be a substantial demand for a large stock of the population to be high on human capital. Hence, there are few reasons to expect a large-scale return to the skewed division of household labor or to a short and homogenous period of education of the kind that is often theorized to exercise the strongest impact on family structure. It will therefore be interesting to study new technologies as “engines of life course re-structuring” and to study in what way technologies change the existing features of labor markets and educational systems and whether this produces new pathways to and forms of family organization.

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