

FERTILITY NORMS  
IN A DYNAMIC AND CROSS-NATIONAL PERSPECTIVE

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FERTILITY NORMS  
IN A DYNAMIC AND CROSS-NATIONAL PERSPECTIVE

Fertiliteitsnormen in een dynamisch en internationaal perspectief

Proefschrift

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# CHAPTER 1

## INTRODUCTION

### 1.1 Relevance of studying fertility norms

#### 1.1.1 Background and aims of this study

This dissertation presents a number of studies on the micro and macro level determinants of fertility norms and the influence of these norms on fertility behavior. In many demographic studies, researchers express their concerns about recent European fertility levels (e.g. Frejka & Sobotka, 2008). Nowadays, many European countries are confronted with a period total fertility rate (TFR) of below-replacement level, while demographers generally assume that a TFR-rate of around 1.7 - 1.8 is required to minimize negative societal outcomes (Frejka & Sobotka, 2008). Figure 1.1 shows that many European countries experienced a decline in Total Period Fertility Rate (TFR) between 1960 and 2009. It also shows that there are considerable differences across European countries. In 2009, fertility levels were most problematic in Eastern Europe (Bosnia Herzegovina and Hungary) and Southern Europe (Italy and Spain).

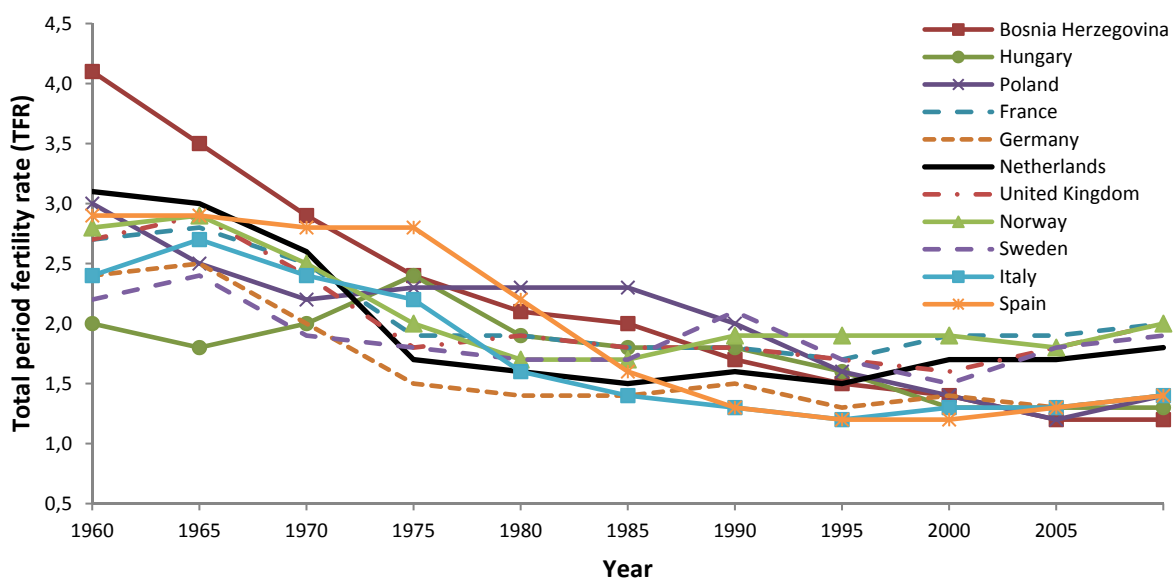


Figure 1.1 Total Period Fertility Rate in a selection of European countries, 1960-2009

Source: World Development Indicators (WDI), World Bank.

The decline in TFR is partly caused by the rise in proportions of women having no children or only one child, which are common trends among 1945-1965 European birth cohorts (Frejka, 2008). In addition, studies found that postponement of parenthood has also become universal in Europe (Frejka, 2008; Sobotka & Testa, 2008). Since the mid 1990s a sharp increase in mean age at first birth has been found across many European countries, which again illustrates that many European citizens delay childbearing nowadays (Frejka, 2008).

What causes changes in fertility behavior? For decades, researchers applied economic theories that considered fertility behavior as the result of rational considerations of costs and benefits (Kirk, 1996; Lesthaeghe & Moors, 2002). The general assumption is that economic utility or benefits of children have decreased, while opportunity costs related to parenthood increased (Morgan & Berkowitz King, 2001). Nowadays, children have become less important for securing the financial position of parents in later life, especially in industrialized countries with expanded welfare state regimes (Fokkema & Esveltdt, 2008; Morgan & Berkowitz King, 2001). At the same time, opportunity costs related to parenthood have risen because labor market participation of women has become more common.

Although an economic cost-benefit paradigm is certainly invaluable to explain fertility behavior and -changes, cultural explanations considering ideational factors like values and norms are relevant as well (Lesthaeghe, 1983). Lesthaeghe (e.g. 1983; 1995) studied the major demographic transitions that occurred in Western societies since the 1960s, referred to as the Second Demographic Transition (Lesthaeghe & van de Kaa, 1986). This theory describes that since the 1960s, marriage rates have fallen while unmarried cohabitation and divorce rates increased. With respect to fertility, the declining fertility rates and rising levels of childlessness are reported. Therefore, the Second Demographic Transition is about the erosion of the family as an institution (Lesthaeghe & van de Kaa, 1986).

In order to explain these significant changes in demographic behavior researchers not only studied social-economic explanations but also examined cultural explanations for fallen birth rates (Jansen, 2002; Lesthaeghe & Surkyn, 1988). Cultural explanations focus on several cultural developments that are related but not mutually exclusive (Jansen, 2002; Sobotka, 2011). To start with, individualization refers to increasing individual autonomy and is one of the most important cultural

trends in Western Europe since the last decades. People are assumed to make their own decisions and are less dependent on institutions and thoughts and behavior of others around them. Secularization and the development of postmaterialism are two other important cultural processes, which can both be regarded as expressions of individualization (Jansen, 2002). Secularization means that religion and religious institutions had substantial power in traditional society, while their influence has weakened in contemporary society. Nowadays people have their own beliefs rather than adhering to the rules and values prescribed by religious institutions (Halman & Draulans, 2006). According to Inglehart (1977) many West-Europeans hold postmaterialist views stressing higher-order needs and self-actualization, because materialistic goals are fulfilled due to economic development. Based on individualization, secularization and rising postmaterialism one might expect that fertility norms are weakened in contemporary society. On the other hand, recent studies have shown that even in highly individualized and secularized countries like the Netherlands norms are still significant predictors of different kinds of life-course decisions such as leaving the parental home, cohabitation and divorce (Billari & Liefbroer, 2006; Billari, Philipov & Testa, 2009; Liefbroer & Billari, 2010).

The influence of norms and values on fertility behavior, however, is often only discussed theoretically. Empirical studies are scarce because panel data are required for a proper examination of the relation between norms and behavior (Jansen, 2002; Lesthaeghe & Moors, 2002). This dissertation aims at clarifying to what extent fertility norms affect fertility behavior. At the same time, we examine to what extent fertility norms changed over time and explain why fertility norms differ among individuals and countries. Most chapters focus on fertility in the Netherlands. Chapter 5, however, studies fertility norms cross-nationally. In the next section, we first continue with explaining the relevance of fertility norms in more detail.

### *1.1.2 Societal relevance*

Fertility norms are worth studying for both societal and scientific reasons. To begin with, a general assumption is that norms influence behavior due to their proscribing character (Hitlin & Piliavin, 2004). By following norms one avoids social sanctions (Fishbein & Ajzen, 1975; Lesthaeghe, 1980; Liefbroer & Billari, 2010). Liefbroer and Billari (2010) distinguish different kinds of social sanctions such as gossiping about

the behavior, showing disapproval, ignorance or attempts to persuade the person to act in agreement with the norm. With respect to divorce, for instance, research has shown that sanctions after divorce are stronger when norms against divorce are stronger (Kalmijn & Uunk, 2007). When there is strong disapproval of divorce contact with friends, relatives and neighbors decreases after experiencing a divorce. Another reason why people intend to follow norms is caused by internalization of a norm. In this case internal control might even become more important than sanctions of one's social environment. By violating one's personal norm one can experience strong feelings of shame and guilt (Liefbroer & Billari, 2010). Previous studies claimed that during socialization many people, especially women, are confronted with the common expectation to become a parent one day (e.g.: Jones & Brayfield, 1997). Besides, fertility decisions are not made in pure isolation and are therefore assumed to be affected by the normative context one is living in, which is why fertility norms are important to study (see for example: Goldstein, Lutz & Testa, 2003; Heiland, Prskawetz & Sanderson, 2008; Lesthaeghe & Surkyn, 1988; van de Kaa, 2001).

The causes of changing fertility behavior are of considerable importance, because a decline in fertility rates has major effects on society in the long run. Many developed countries will experience ageing of their populations over the next decades due to the combination of declining fertility and rising life expectancy (Castles, 2003; Frejka & Sobotka, 2008; Lesthaeghe, 2011). Due to low fertility rates the consequences of an ageing population will make things worse. Despite country differences in falling fertility rates, many developed countries will experience difficulties with current pension and health systems, because a relatively large proportion of the population will claim social benefits while only a small proportion of workers is available to bear the costs (Kravdal, 2010).

The strength of fertility norms also has other societal consequences. It is often assumed that, due to the cultural shift towards higher levels of individualization, family ties are becoming less important (Jansen, 2002). Weak fertility norms leading to lower levels of fertility might be an indicator of erosion of the family as an institution. Early sociologists already assumed that the family is an important source of social integration. In his classical study Durkheim (1951) found that specific social ties, such as having a family, reduces the risk of committing suicide. Contemporary sociological studies also investigated the influence of children on parental well-being

in later life. Several studies found that adult children and parents exchange socio-emotional and practical support, which enhances parent's mental health (see for example: Umberson, Pudrovska & Reczek, 2010). Besides, childless men and women have smaller social networks in later life compared to parents (Dykstra, 2006).

Furthermore, when fertility norms are relatively strong, not having children might have negative consequences for the childless, because their behavior violates society's dominant norm. This might be especially true for those who voluntarily decided not to have children. Recent studies on the consequences of being childless, report that stigmatization is still likely to occur these days, albeit to a lesser extent. Many people assume that nonparents are missing something important in life (Letherby, 2002). Voluntary childless women continue to be stereotyped as selfish, irresponsible, deviant or unfeminine (Dykstra & Hagestad, 2007; Keizer, Dykstra & Poortman, 2010; Letherby, 2002).

### 1.1.3 Scientific relevance

Several reasons can be given for studying fertility norms from a scientific point of view. Studies empirically examining the influence of values and norms on behavior are scarce due to both substantive and methodological reasons (Jansen, 2002; Lesthaeghe & Moors, 2002; Moors, 2000). To start with, previous studies often ignored cultural explanations when investigating fertility behavior, because some researchers claimed that there is no causal relationship between fertility norms and behavior. Instead, a third concept, for instance socio-economic background, is responsible for changes in both fertility norms and behavior. According to this perspective, the causal relation between fertility norms and behavior is spurious (Moors, 2000). Hence, this study contributes to contemporary research by examining the influence of norms on fertility behavior while controlling for intervenient factors that are expected to affect fertility behavior.

From an empirical point of view, panel data are needed in order to study the causal relationship between norms and behavior properly. Therefore, we use panel data in which fertility norms are measured before actual behavior takes place. In addition, the panel data also enables us to study the *mutual* causal relation between norms and behavior. Numerous studies on norms and behavior indicated that norms are not only expected to determine behavior but that (past) behavior is also likely to

affect norms and values (see for example: Beets, Liefbroer & Gierveld, 1999; Lesthaeghe & Moors, 2002; Moors, 2000). Norms influencing behavior is often referred to as the *selection process*, in which one is selected into a certain position or situation due to one's preexisting norms. The reversed causal relation, in which behavior influences norms, is called the *accommodation or adaptation process* (Beets et al., 1999; Moors, 2000). At the end of this chapter, the latter will be discussed in more detail.

Many researchers argue, however, that the individual life course seems to explain variability in fertility norms only partially. Norms are likely to be influenced by various contexts one is living in. For instance, norms expressed by significant others from one's social network are likely to influence one's norm (Buehler & Fratzak, 2007; Marsden & Friedkin, 1993). In addition, studies applying a macro-perspective when examining norms and values have shown that the societal context in which fertility takes place also matters. Earlier studies examining trends in values and norms found that the changing societal context of a country over time is related to a change in the public opinion (see for example: Coenders & Scheepers, 1998; Jaspers, Lubbers & De Graaf 2007; Kraaykamp, 2002). Moreover, cross-national studies also found that national context characteristics are associated with differences between countries regarding the acceptance of homosexuality (Adamczyk & Pitt, 2009), euthanasia (Verbakel & Jaspers, 2010) and divorce (Gelissen, 2003). The datasets used in this dissertation allow for studying different contexts in which fertility takes place such as one's social network (multi-actor data) and one's country of residence (longitudinal and cross-national data).

## **1.2 Fertility in the Netherlands**

Before we turn to the research questions that structure this dissertation, we continue with describing the Dutch context in which fertility behavior takes place, because most empirical chapters of this dissertation focus on the Netherlands. Since 1973 the Dutch fertility rate is far below replacement but relatively high compared to fertility rates of other European countries (Fokkema, de Valk, de Beer & van Duin, 2008; Rijken & Knijn, 2008). Figure 1.2 shows fertility in the Netherlands between 1950 and 2009 by illustrating trends in quantum (number of children) and tempo (mean age mother at first birth) fertility, which are two essential aspects in fertility research.

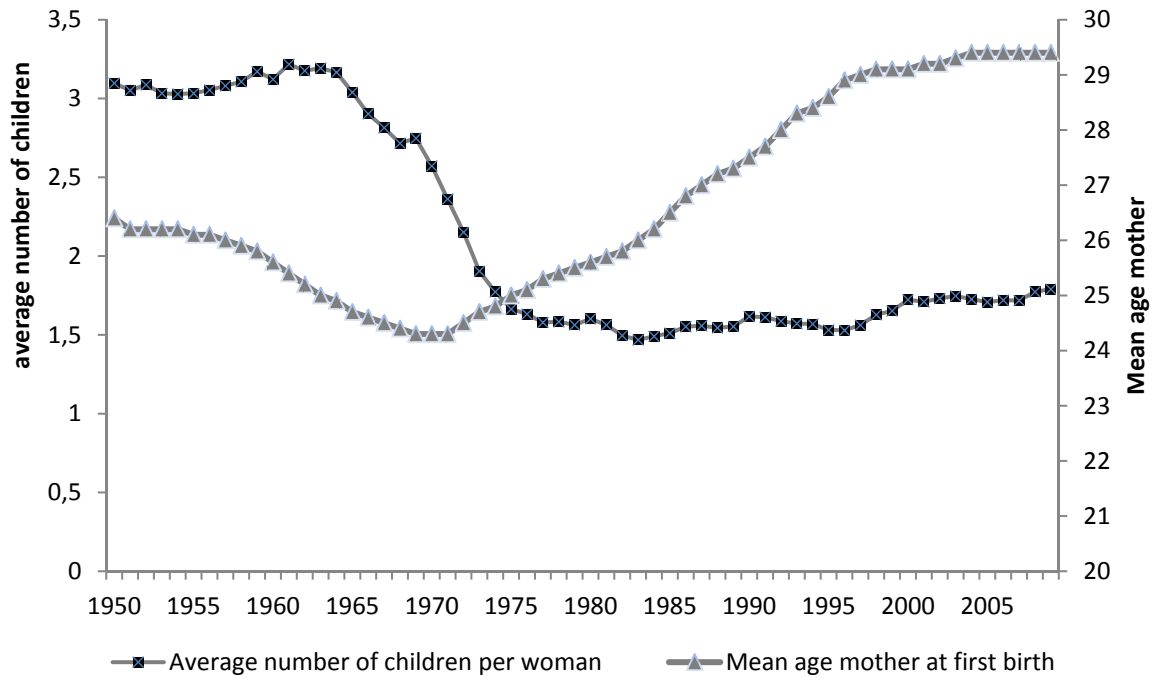


Figure 1.2: Average number of children per woman and mean age of women at first birth, the Netherlands, 1950-2009 Source: Statistics Netherlands

Figure 1.2 shows that the average number of children per woman has dropped significantly between 1950 and 2009. On average, Dutch women conceived more than three children in 1950, whereas the average number of children was below 1.8 in 2009 (Statistics Netherlands, 2011). The mean age of mothers at first birth, however, increased considerably during this same time span: In 1950 mothers were approximately 26 years old when their first child was born, while in 2009 Dutch women conceived their first child when they were over the age of 29. An important explanation for the postponement of parenthood is the invention of the hormonal birth control pill in the 1950s, which changed the perception of parenthood. Although contraceptive methods existed for ages, they were not very reliable. The birth control pill enabled women to control their fertility (Hakim, 2003). The often mentioned shift from “having children” toward “taking children” illustrates this changing perception of parenthood (Fokkema et al., 2008). It is important to note, however, that there are considerable differences among social groups within Dutch society (e.g. Keizer, Dykstra & Jansen, 2007). The proportion of childless women of the birth cohort 1960-1964, for example, approaches 30 percent among higher educated women, while only

16 per cent of the lower educated women remained childless (Statistics Netherlands, 2011).

Female labour force participation rates have increased enormously in the Netherlands since the last decades, while Dutch women started to participate rather late. In 1975, almost one in three women had a paid job, whereas almost 70 percent participated on the labour market in 2006 (Euwals, Knoef & van Vuuren, 2007). Nowadays, most Dutch women (continue to) participate on the labour market once they have children. In 2009, more than 70 per cent of all women with at least one child under the age of 3 participated on the labour market (Janssen & Portegijs, 2011). Researchers again found considerable differences among educational groups, because participation rates are much higher among higher educated rather than lower educated women. Most Dutch women, however, are working part-time (Rijken & Knijn, 2008; Wierda-Boer, Gerris & Vermulst, 2008). Boye (2011) found that Dutch women are working relatively few hours per week compared to women from other European countries.

To conclude, there have been considerable changes in living arrangements in the Netherlands. Marriage and childbearing are no longer strongly interrelated in the Netherlands, because an increasing number of children are born outside marriage nowadays. In 2009, more than 4 out of 10 children are born to unmarried mothers (Statistics Netherlands, 2010). In other words, there have been substantial economic and cultural changes which made the traditional family with children a less taken for granted institution. It is against this background that we analyse the determinants of fertility norms.

### ***1.3 Research questions***

In this dissertation, fertility norms are studied using two broad perspectives. Earlier studies revealed that norms are not necessarily shared by the whole population of a country (Liefbroer & Billari, 2010). The strength of norms is likely to vary across groups within society. That is why the first two research questions consider the relation between individual characteristics and fertility norms by applying a micro perspective. In Chapter 2, we start with examining to what extent the fertility norms of both husband and wife affect joint fertility behavior. In Chapter 3 we continue with explaining why individual fertility norms differ due to personal characteristics such



as socio-economic characteristics, one's social network and life course transitions. In the second part of this dissertation, we use macro-level explanations in order to explain differences in fertility norms. In Chapter 4, we examine the sources of change in the public opinion regarding voluntary childlessness in the Netherlands between 1965 and 1996. In Chapter 5 we focus on why fertility norms vary between European countries.

### *1.3.1 Couple's fertility norms and joint fertility behaviour*

My first research question uses a couple's perspective to examine to what extent fertility norms influence fertility behaviour. Although studies on fertility behaviour usually examine the influence of socio-background characteristics of women only, both partners play a substantial role in a couple's decision to have a(nother) child (Corijn, Liefbroer & de Jong Gierveld, 1996; Goldscheider & Kaufman, 1996). Socio-economic background characteristics, like educational attainment, can be examined by questioning only one partner. But using proxy-reports in order to study the perceptions or norms of respondent's partner is less reliable, because respondents might be unwilling or unable to report the true thoughts and perceptions of their partner (Goldscheider & Kaufman, 1996). Rijken (2009) found, for instance, that partners sometimes report different levels of relationship quality and that both partners' perceptions of their relation matter for having a second child.

The question rises, however, whether both partner's norms will be *equally* important for their joint fertility behaviour. Literature on decision power within couples distinguishes four scenarios (Corijn et al., 1996; Jansen & Liefbroer, 2006; Safilios-Rothschild, 1970; Thomson, 1997). According to *the power rule*, husbands will have more decisional power because they have more resources than their wives. On the other hand, *the sphere-of-interest rule* predicts that women will have the final say in fertility decisions, because raising children remains primarily a women's task. *The golden mean rule* argues that both partners will exert equal influence over their joint fertility decisions, whereas *the social drift rule* assumes that fertility behaviour will be postponed when both partners hold dissimilar norms.

Hence, the research question answered in Chapter 2 is:

1) *To what extent do husbands and wives have similar fertility norms and to what extent do these norms affect joint fertility behavior?*

### *1.3.2 Individual characteristics and fertility norms*

After studying whether fertility norms affect behaviour, the second research question is about individual determinants of fertility norms. Studies on determinants of fertility behaviour often use the socio-psychological model of the Theory of Planned Behavior (TPB) (Ajzen, 1988). According to this model, whether one intends to have a child or not depends on individual characteristics and values but is also affected by the perceived norms of (significant) others. One's social network is likely to influence fertility through processes of social influence and social learning (Dommermuth, Klobas & Lappegård, 2011; Montgomery & Casterline, 1996). Social influence refers to the tendency to conform to ideas and norms expressed by other network members (i.e. the reference group) in order to reinforce feelings of group membership and to avoid sanctions of the group (Rossier & Bernardi, 2009). Due to social learning, network members who already made the transition into parenthood can provide new information about the costs and rewards of having children (Montgomery & Casterline, 1996). As a consequence, individual perceptions on parenthood might change.

Research on social networks found that for many people the family network appears to be the most important network for a number of reasons. First, for discussing important personal matters people often turn to one's partner, sibling or parent (McPherson, Smith-lovin & Brashears, 2006; Mollenhorst, Volker & Flap, 2008). Second, family networks are relatively dense and interconnected, because family members often know each other without intervention of another family member. Third, compared to friends, family members are also more likely to remain important confidants over a longer period of time (Suitor & Keeton, 1997). With respect to fertility, the norms of the family network might be of considerable importance since children sometimes experience parental pressure to enter parenthood (Barber & Axinn, 1998).

Values and norms are also expected to change over the life course. Norms are likely to 'select' individuals into specific living arrangements. On the other hand, life

course transitions are also likely to affect one's perceptions (Lesthaeghe & Moors, 2002). Entering a new stage of life, in the case of fertility making the transition into parenthood, leads to new experiences and social interaction patterns (Axinn & Barber, 1997). Furthermore, life course transitions can change or reinforce norms to avoid cognitive dissonance. This means that it is desirable that one's norms are in line with past behavior (Festinger, 1950). These considerations lead to the following research question:

2) *To what extent are individual fertility norms affected by one's socio-demographic characteristics, social network and life course events?*

### *1.3.3 Trends in fertility norms in the Netherlands, 1965-1996*

My third research question is framed around the sources of change in norms over time. Research on long-term changes in public opinion often uses cohort replacement- and intra-cohort effects in order to study the sources of social change (Glenn, 1977; Kraaykamp, 2002; Rodgers, 1982; Ryder, 1965). Cohort replacement assumes that the values and norms of different birth cohorts vary, because norms are the result of socialization processes during childhood and early adulthood. It is assumed that each birth cohort has grown up under different circumstances, which affected their outlook on different domains in life. A country's value climate is expected to change, because younger cohorts enter society through birth while older cohorts exit through death. Inglehart (1977) calls this phenomenon *the Silent Revolution*.

Intra-cohort effects, on the other hand, refer to some birth cohorts becoming more tolerant over time due to period effects and life-course effects. Period effects often refer to macro-societal changes in economic and political respect, which affect all members of society equally. Life-course effects refer to personal changes as a result of experiencing various life-course transitions, which we discussed in the previous section.

These issues are addressed in Chapter 4, which answers the following research question:

3) *To what extent is the overall change in acceptance of childlessness in the Netherlands between 1965 and 1996 due to cohort replacement and intra-cohort changes?*

#### 1.3.4 Cross national differences in fertility norms

My final research question is about European differences in fertility norms and addresses the issues of modernization and social institutions. According to modernization theory, differences in values and norms between countries are caused by different levels of economic development, because economic growth leads to pervasive cultural changes (Inglehart, 1990; Inglehart & Baker, 2000). Once basic economic needs are fulfilled survival and traditional values become less important, while modern values stressing self-actualization and personal freedom become more important. Economic modernization goes hand in hand with cultural modernization. In Chapter 5 we examine to what extent aspects of cultural modernization are associated with stronger or weaker fertility norms by examining countries' level of religiosity, postmaterialism and gender equality.

Other researchers claim that modernization can only partially explain country differences in values and norms, because the cultural climate in countries with the same level of economic growth can be different due to social institutions (Fjellvang, 2010; Gundelach, 1994; Haller, 2002). Due to the collapse of the communist regimes, economic and political changes in Central and Eastern European (CEE) countries occurred only recently since the 1990s, whereas similar changes emerged already in the 1960s in Western Europe (Frejka, Sobotka, Hoem & Toulemon, 2008; Sobotka & Testa, 2008). These considerations will be studied in depth in Chapter 5, in which the following research question is addressed:

4) *To what extent do Europeans have different norms against childlessness and how can differences between countries be explained?*

### **1.4 Data sources**

So far, empirical evidence for the research questions formulated in this chapter is limited due to data restrictions. Analyzing the role of fertility norms of one's partner and social network is hard to establish, because multi-actor data containing information of main respondents and his or her social network have not often been collected in large-scale surveys. Answering the macro-level research questions is also not without data problems. Empirical data for studying long-term changes in the acceptance of voluntary childlessness in the Netherlands are difficult to find. In addition, suitable European datasets are also scarce, because most comparative datasets on fertility issues include only a limited number of East European countries. Three data sources are used for the empirical analysis of our research questions in the next four chapters: the Netherlands Kinship Panel Study (NKPS) (Dykstra, Kalmijn, Knijn, Komter, Liefbroer & Mulder, 2004) the Cultural Change in the Netherlands surveys (CCN) (Social and Cultural Planning Office, 1996) and The European Values Study (EVS) (EVS, 2010). Research Question 1 is answered using logistic regression and Bayesian Information Criterion (BIC) scores. Other methods used were change score regression and lagged dependent variable regression (Research Question 2). Research question 3 was answered using multinomial logistic regression. To answer Research Question 4 multi-level analyses were performed.

#### *1.4.1 Netherlands Kinship Panel Study (NKPS)*

Chapters 2 and 3 are based on the data of the Netherlands Kinship Panel Study (NKPS). The NKPS is a nationally representative large-scale panel study in which family ties are the focus of attention. An important feature of this dataset is its panel design, which means that the same group of respondents is interviewed at different points in time. In this dissertation the first two waves of the NKPS data are used. The NKPS data were collected using computer assisted interviews and written questionnaires. Data from the first wave are gathered between 2002 and 2003. The response rate of the first wave was 45% which resembles response rates of other large-scale family surveys in the Netherlands. Data for the second wave were collected between 2006 and 2007. The overall response rate of the second wave of NKPS was 74%. The NKPS dataset contains multi-actor data, which are scarce due to its expensive design. During both waves main respondents were interviewed. After

the interview, permission was asked to contact the family members of the main respondent. If available, one of the parents, a sibling, a child and the partner were asked to participate in the survey by filling out a written questionnaire. This makes the data extremely suitable for studying the importance of the social network one belongs to. On top of that, it is possible to study causality properly since NKPS consists of multiple waves repeated in a highly comparable manner. For answering Research Question 1 about the influence of fertility norms on fertility behavior, we analyze 887 couples who are in their reproductive period. Information on the fertility norms of both husband and wife was available. To answer Research Question 2 about the relation between the fertility norms of one's social network and one's own fertility norm, information is used from 5,309 main respondents, 1,690 parents, 3,289 partners, 2,354 siblings and 1,820 children

#### *1.4.2 Cultural Change in the Netherlands (CCN)*

The fourth chapter of this dissertation examines trends in the acceptance of voluntary childlessness in the Netherlands. The chapter is based on the Cultural Change in the Netherlands survey (CCN) (Social and Cultural Planning Office, 1996). I will merge the data sets from 1965, 1970, 1975, 1980, 1983, 1985, 1987, 1991, 1992, 1993, 1994, 1995, and 1996. The Cultural Change in the Netherlands survey is the only dataset that provides a time span of more than thirty years which allows for proper examination of changes in the acceptance of childlessness in the Netherlands. A drawback of the CCN surveys is that background information of the first surveys is limited. Nevertheless, I believe that the scientific progression that can be made by examining long-term cultural trends outweighs this disadvantage. To answer Research Question 3 about the long-term changes in fertility norms in the Netherlands, information from 24,016 respondents, collected during 13 survey waves, was used.

#### *1.4.3 European Values Study (EVS)*

The European Values Study (EVS) contains very rich information about people's values regarding a wide range of topics: perceptions of life, work, religion, family and marriage, politics, environment and moral values. The dataset consists of four waves that are collected in 1981, 1990, 1999 and 2008. In 1981, the European Values Study started with interviewing citizens from 14 European countries. In each subsequent

wave the survey was repeated and numerous countries were added. In the most recent EVS wave, which I will use to answer the research questions of chapter 5, all European countries are included. Representative random samples were drawn from each country and respondents were questioned personally using face-to-face interviews. In 2008, a valuable improvement has been accomplished by adding a rich set of socio-demographic background variables which enables researchers to examine individual determinants of values in depth. All these features make the European Values Study an inevitable source for the cross-national study of value patterns. In order to answer Research Question 4, we select all respondents with valid scores on our main variables of interest. As a result, we analyze 55,476 respondents from 46 different countries.

### ***1.5 Outline of the dissertation***

The four research questions posed in this chapter structure the book. The first part starts with investigating whether fertility norms affect fertility behavior, because Chapter 2 addresses the extent to which husbands' and wives' fertility norms affect joint fertility behavior. Advantage is taken of the fact that NKPS includes norms reported by husband and wife separately. The panel structure of the data allows us to examine the effect of reported ideal family sizes on the decision to have another child for couples already having at least one child. This means that besides studying differences in husbands' and wives' ideal family size norms, we also pay attention to possible differences in marital power regarding fertility decisions. After that we continue with studying micro-level perspectives on why some people hold more conservative views regarding parenthood than others. We use multi-actor panel NKPS data to study the influence of (1) socio-demographic characteristics, (2) one's social network and (3) life course transitions. Since NKPS data provides us with fertility norms reported by the partner, a parent, a sibling and a child of the respondent (if present), we are also able to consider the extent to which one's family network influences fertility norms.

From micro-level explanations for differences in fertility norms, we move on to the second part of the book that considers macro-level explanations with special attention being paid to national context characteristics. In Chapter 4, Cultural Change in the Netherlands data are used for analyzing the causes of the trend towards more

acceptance of voluntary childlessness in the Netherlands between 1965 and the mid 1990s. Cohort replacement and intra cohort change are introduced as important explanations for the increase in acceptance levels, and the results will show to what extent differences in acceptance of childlessness are due to either the changing composition of the population, or societal events that affected all members in society, or both. Chapter 5 addresses research question 4 by examining cross-national differences in European fertility norms, using the fourth Wave of the European Values Study. Multilevel analyses including 46 European countries are conducted to estimate effects on the fertility norm claiming that it is a duty towards society to have children. We take into account national context characteristics such as economic prosperity and religiosity, but also consider individual level characteristics like child status and religiosity.

In the concluding chapter, Chapter 6, answers to the research questions are given by summarizing and discussing the main findings of this book. We end with drawing attention to the limitations and contributions of this study to the fertility literature. Suggestions for future research are also discussed. Readers should note that chapters 2 to 5 were intended to be read separately, because these chapters were written in the form of journal publications. This is why some overlap between these chapters and the remainder of the dissertation appeared to be inevitable.



## **CHAPTER 2**

### ***COUPLE'S FAMILY SIZE NORMS AND FERTILITY BEHAVIOR: A MULTI-ACTOR PERSPECTIVE<sup>1</sup>***

In this chapter, we investigate the influence of family size norms on the likelihood to have another child from a multi-actor perspective. We focus on the question what happens when husbands and wives do not have the same norms. We test four decision rules: the power rule, the sphere of interest rule, the golden mean rule and the status quo rule. We analyze the Netherlands Kinship Panel Study (NKPS) with information on 887 couples who already have at least one child. In approximately 35 per cent of these couples, husband and wife have different family size norms. The main finding of our analysis is that husbands' and wives' family size norms have equal effects on the likelihood to have another child. This supports the golden mean decision rule. As a by-product of our analysis we find that socio-demographic background indicators affect fertility largely through family size norms.

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<sup>1</sup> This chapter was co-authored with Prof. Dr. Paul de Graaf and Prof. Dr. Matthijs Kalmijn and is currently under review. An earlier version of the paper was presented at the national sociology conference (Dag van de Sociologie), June 2009, Amsterdam.

## **2.1 Introduction**

In this study we investigate to what extent husbands' and wives' family size norms affect the likelihood of experiencing a second or higher-order birth. That fertility behavior is affected by individual preferences and intentions has consistently been found in previous research (Quesnel-Vallee & Morgan, 2003; 2009; Schoen, Astone, Kim, Nathanson & Fields, 1999; Thomson, 1997). When examining how husbands and wives jointly decide about having a child, the study of intentions also has some drawbacks. Fertility intentions appear to be highly correlated with fertility behavior and it has been argued that such intentions in fact represent a couple's negotiated and joint plan (Thomson, 1997). For example, in several studies on fertility intentions there appeared very few couples in which husbands and wives had different intentions (Jansen & Liefbroer, 2006; Thomson & Hoem, 1998). Although fertility intentions are appropriate for making demographic forecasts, especially in developing countries (Gipson & Hindin, 2009), these are probably less suitable for studying the decision-making process of couples.

Studying the underlying fertility norms of spouses may be more promising in this respect since these are further removed from the actual decisions that couples may have made and may therefore be more different within couples. With fertility norms, we refer to the number of children that a person believes that people should have in their life. It is a normative expectation toward other people although for most persons, it will also be regarded as a guide for one's own behavior.

Some studies already found that fertility norms, which are of a more general nature than intentions, also influence fertility behavior (Beets et al., 1999; Moors, 2002). Beets, Liefbroer and Gierveld (1999), for instance, found that for both male and female respondents fertility norms were significant predictors of having a first child. Although Beets, Liefbroer and Gierveld (1999) found value differences between male and female respondents in a cross-sectional survey, this does not necessarily imply that there are value differences among couples because value similarity is part of the partner selection process (Kalmijn, 1994; McPherson, Smith-Lovin & Cook, 2001). Our first aim, therefore, is to examine whether husbands' and wives' family size norms differ (within couples).

Our second aim is to assess if and to what extent husbands' and wives' family size norms affect fertility behavior. Although studies of fertility intentions have

studied couples, studies investigating the influence of fertility norms on fertility behavior have generally analyzed the fertility norms of only *one* partner (e.g. Beets et al., 1999; Moors, 2002). Examining both partners' norms, and thus applying a *couple's perspective*, is useful, since in most cases, a child is born and raised in a family with two parents living together in one house. In this situation, it is likely that both partner's background and norms matter when considering having a child (Corijn et al., 1996; Iacovou & Tavares, 2011; Voas, 2003). When spouses have different fertility norms, it is not immediately clear how couples must decide and this makes the norm-behavior relationship more complex and theoretically more interesting than in cases where we deal with the question of how norms affect individual behavior. Some past studies, which have used a couple's perspective, have asked wives to report husbands' fertility norms by using so-called proxy-reports. This method appeared to be less reliable since wives are either unwilling or unable to do so (Goldscheider & Kaufman, 1996). Therefore, analyzing fertility norms reported by husbands and wives themselves leads to more accurate findings compared to studies solely relying on wives' reports, especially when husbands and wives hold dissimilar norms (Becker, 1996; Gipson & Hindin, 2009; Voas, 2003; Williams & Thomson, 1985).

Why, then, do most studies of fertility norms *not* apply a couple's perspective? From a methodological point of view, two main reasons can be distinguished. First, collecting multi-actor data that contain both partners' reports is an expensive research design, which has not been done often. Second, for the sake of assessing causality, panel structured data are essential in order to ensure that fertility norms are measured before demographic behavior has occurred. Hence, multi-actor *panel* data are needed but this type of data is even scarcer. We try to resolve both methodological issues by using data from two waves of the *Netherlands Kinship Panel Study (NKPS)*. This study contains self-reports of both partners' family size norms, which enables us to use a couple perspective. Besides, respondents are interviewed twice; during the first wave both partners' family size norms are obtained, whereas the second wave assesses the demographic events that couples experienced after the first interview.

The multi-actor panel structure of the NKPS data enables us to analyze the combined influence of husbands and wives in the decision-making process more

carefully. Our third aim is, therefore, to examine whether husbands' and wives' family size norms are of equal importance in the decision-making process. Previous studies on husbands' and wives' influence on couple's behavior offered different theoretical explanations of why either husband or wife would dominate in the decision-making process preceding joint behavior, or why husband and wife would exert equal influence over joint decisions (Corijn et al., 1996; Jansen & Liefbroer, 2006; Thomson & Hoem, 1998; Thomson, McDonald & Bumpass, 1990). In this study we extend our knowledge of couple's decision-making process, because we not only distinguish decision rules but also explicitly test them. Furthermore, we run separate analyses for different work arrangements between partners. Although dual-earner arrangements are common in the Netherlands, a fairly large proportion of Dutch women is working few hours (Roeters, van der Lippe & Kluwer, 2009). In the next section we will first discuss the four decision-rules in more detail.

## **2.2 Theoretical background**

In previous research on dissimilar norms or norms among husbands and wives and later joint behavior, a number of decision rules or heuristics have been suggested (Corijn et al., 1996; Jansen & Liefbroer, 2006; Thomson & Hoem, 1998). We will distinguish four decision rules. The first decision-rule, the *power rule*, focuses on the degree to which a spouse has the power to decide on collective affairs in marriage. The classic sociological view on power within marriage argues that power depends on the distribution of economic resources within marriage (Blood & Wolfe, 1960; Brines, 1994; Safilios-Rothschild, 1976). More specifically, it is believed that the spouse with the highest level of economic resources - as indicated by education, income, or occupational status - has more power and will therefore have a greater say in family decisions.

The second decision rule regarding the influence of husbands' and wives' norms, is the *sphere of interest rule* (Jansen & Liefbroer, 2006; Thomson & Hoem, 1998). According to this rule, the extent to which both partner's norms influence joint behavior depends on the domain to which the topic of discussion belongs. The underlying assumption is that the person who is most strongly affected by the couple's decision also has the legitimate right to decide. Usually, this argument

applies to the costs that are connected to a decision, not to the benefits. The person who bears the costs may decide.

Next, the *egalitarian rule* or the *golden mean decision rule* argues that husbands' and wives' views are of equal importance (Corijn et al., 1996; Jansen & Liefbroer, 2006). Previous research applying the golden mean heuristic, suggested that behavior of the couple is somewhere between both husbands' and wives' norms. An example is in the effect of norms on the division of household chores between partners (Jansen & Liefbroer, 2006). The number of hours a wife spends on household chores is affected both by her own norms and by the norms of her spouse.

The final decision-rule we distinguish is the *status quo or social drift rule*. This rule argues that when there are opposing fertility norms, husbands and wives postpone the decision to have another child (Corijn et al., 1996; Jansen & Liefbroer, 2006). Neal and Groat (1980) studied the social drift hypothesis and its effect on fertility decisions. They argue that people are likely to avoid rational decision making when they perceive their social environment as unpredictable and contradictory. Instead, they develop a so-called 'social-drift lifestyle' meaning that they respond to events that just happened rather than making events happen through own decision making.

### 2.2.1 Hypotheses

How do Dutch couples make joint decisions? The four decision rules lead to competitive answers. The power rule argues that the partner with the most resources will decide. When we use own income as the main resource that individuals have, we would expect that on average husbands have more resources in marriage than wives. Although most Dutch women work for pay, many of them work in part-time jobs, especially when they have young children, while most men have fulltime jobs (Engelhardt & Prskawetz, 2004). On average, Dutch fathers work twice as much hours as mothers and the highest proportion of part-time working women is also found in the Netherlands (Cousins & Tang, 2004). Hence, the power rule implies that the norms of the husband will be more important in fertility decisions than the norms of the wife.

The sphere of interest rule argues that spouse's influence in the decision-making process depends on whether the issue is his or her domain. In all countries

studied, raising children is still mainly the wife's vocation. In many countries mothers spend more time on childcare activities than fathers (Sayer, Gauthier & Furstenberg, 2004). Although there has been a considerable increase in fathers' time spent on childcare activities during the last decades, fathers' time with children remains lower than mothers' time with children, which also indicates that mothers can still be seen as primary caretakers of children (Sandberg & Hofferth, 2001; Sayer, Bianchi & Robinson, 2004). Similar results are found in Dutch studies showing that fathers are less involved in taking care of their children than mothers (Kalmijn, 1999; van Dijk & Siegers, 1996). Additional evidence showed that costs related to childbearing are higher for mothers than fathers. Compared to women who remained childless, for instance, becoming a mother resulted in an increase in both hours spent on housework and disagreements with the husband (Nomaguchi & Milkie, 2003). These so-called 'daily strains' were not found for men becoming fathers. The gender difference can be explained using social role perspectives indicating that women are more exposed to the demands of the parental role, because they are still considered to be primary caregivers of children (Nomaguchi & Milkie, 2003). This explains why in dual-earner families working mothers experience more stress than working fathers. Thus, the costs of childbearing may actually be higher for wives, which would make it more and not less her 'domain.' Therefore, relying on the sphere of interest rule, it is expected that in case of disagreement (i.e. opposing fertility norms), wives will have a stronger influence on consequent behavior than husbands. Note that the sphere of interest rule can also be considered as a particular case of the power rule, because power depends on a specific situation (Jansen & Liefbroer, 2006). As a result of gender-specific specialization, wives are likely to be more influential in care and household issues whereas husbands are expected to dominate in labor market decisions.

The golden mean rule assumes equal influence of husband and wife in decision making. When applying the golden mean rule to fertility, the implication is somewhat different since a compromise between husband and wife is not possible (they will have a child or not). Hence, the rule implies that on average, husbands and wives have the same influence on the decision so that half the couples will follow the husband's norm and half the couples will follow the wife's norm. In a regression analysis this would mean that the effects of the husband's and the wife's norms are equal. We

believe that in case of disagreement (i.e. opposing fertility norms), both husband and wife will have an equal influence on consequent behavior (Thomson, 1997; Thomson & Hoem, 1998; Thomson et al., 1990).

The social drift rule predicts postponement of a spousal decision when husband and wife have dissimilar ideas and preferences. In case of opposing fertility norms an uncertain situation is created in which rational decision making will be avoided, because it is much likely to fail in managing crucial life decisions when determination and consistency are lacking (Neal & Groat, 1980). In other words, no change in behavior (in this case an additional birth) will occur when husband and wife hold dissimilar fertility norms. In practice, no decision is also a decision since it implies that the spouse with the weakest fertility norm will be decisive.

When studying the applicability of these four decision rules variation among couples will exist due to differences in work arrangements between spouses. We expect that among single-earner couples, childbearing decisions will be more traditional and gender-specific which makes the power rule and sphere of interest rule more applicable. Whether the power rule or sphere of interest rule is most relevant depends on whether more decisional influence will be gained through providing household income or through performing care tasks. For dual-earner couples, however, the decision making process will be less gender-specific which makes the golden mean and social drift rule most important. The power rule is not expected to predict the decision making process among dual-earners. The sphere of interest rule, however, might be more relevant because, as we discussed above, caring for children remains mainly a woman's task, whether mothers are working for pay or not.

### *2.2.2. Controls: Socialization and demographic characteristics*

We finish this section with a discussion of a number of socialization and demographic characteristics that are expected to affect both fertility norms and fertility behavior. To avoid finding spurious effects of norms on fertility, these will be included in the models we will estimate. First, we include two indicators of both husband's and wife's socialization, religious socialization and the number of siblings in the family of origin. Religion is expected to be associated with fertility, because all religious groups in the Netherlands are concerned with the family, resulting in a more conservative view of

the family and childbearing. A religious socialization will make people to have stronger fertility norms than people who have not grown up in a religious family (Hayford & Morgan, 2008; Pearce, 2002). Furthermore, religious socialization is expected to affect fertility behavior because the religiously socialized are more likely to be religious themselves (Pearce, 2002). We expect that respondents who grew up in a religious family are more likely to experience a second or higher-order birth compared to those who did not grow up in a religious family. Note, that we do not include religiosity of the respondents, because the direction of causality between religiosity and fertility norms is unclear. Religiosity will affect norms, just as religious socialization affects norms, but the reversed affect could also exist. Persons who have low fertility norms might not feel respected and thus at home in church, which might negatively affect their level of religiosity. We trust that our indicators of religious socialization cover the effect of religion on family size norms.

Second, the fertility behavior of one's parents is also likely to be important for an individual's family size norms and fertility behavior. Many studies on the intergenerational transmission of fertility behavior, argue that the number of children in the parental family affects fertility behavior indirectly by shaping a children's norms, but do not examine the intervening effect of fertility norms empirically (Murphy & Knudsen, 2002; Rijken & Liefbroer, 2009; Steenhof & Liefbroer, 2008). Although it is likely that parents transmit fertility behavior through child's fertility norms, there are at least three other mechanisms that could explain the effect of the size of the family of origin on fertility behavior. First, some studies mention genetic factors as an explanation for the correlation between parents' and children's fertility behavior (Murphy & Knudsen, 2002). Second, having more siblings might affect fertility because siblings serve as examples. Third, siblings might provide practical and emotional support which makes childrearing easier (Rijken & Liefbroer, 2009). We therefore expect that family size norms will not completely explain the effect of the number of siblings on fertility behavior. Comparing models with and without controls for the number of siblings in the parental family will clarify this issue.

Third, we will include in the models demographic characteristics of the spouses themselves. Due to biological and social mechanisms, wife's age is a decisive factor regarding fertility behavior and decisions. At the beginning of the age curve, the rate of entering parenthood increases, but after reaching a peak decreases again, a



pattern which is also called the non-monotonic age pattern (Bloom & Trussell, 1984; Blossfeld & Huinink, 1991; Blossfeld & Jaenichen, 1992). This age pattern for demographic behavior has been found for many countries, including the Netherlands (Blossfeld & Jaenichen, 1992; Steenhof & Liefbroer, 2008). Another important demographical aspect is couple's parity. In the Netherlands, the average number of children per family is two (Berghammer, 2009). Therefore, we expect one-child families to have the highest odds of experiencing another birth, whereas the odds for two-or three-child families will be considerably lower. Furthermore, when couples' parity is stable for a long time, they are less likely to experience another birth (Berghammer, 2009; Yamaguchi & Ferguson, 1995). For instance, the longer the interval between the first two births, the less likely a third birth is to occur due to fecundity limitations (Berghammer, 2009; Yamaguchi & Ferguson, 1995). This will be especially true for the Netherlands, because the mean age at first birth is relatively high (Berghammer, 2009).

## **2.3 Data and method**

### **2.3.1 Data**

Our hypotheses are tested using the *Netherlands Kinship Panel Study* (NKPS) data, a two-wave panel study on family relations applying a dynamic multi-actor perspective (Dykstra et al., 2004). The NKPS consists of a random sample of addresses in the Netherlands. Respondents were first interviewed in 2002-2004 ( $t_1$ ) and re-interviewed in 2006-2007 ( $t_2$ ). Initially, computer assisted personal interviews (CAPI) were held with 6,026 primary respondents at both waves, the so-called 'anchors'. The CAPI interviews contain information on anchor's socio-economic background and current position. Self-administered questionnaires were handed out at the end of the face-to-face interviews or sent per mail in order to measure values and norms regarding different topics, such as family life, gender-roles and work ethic.

During the first wave, interviewers asked anchors' permission to contact his or her family network by sending selected family members (spouse / partner, parents, adult children, siblings) written questionnaires. The family members of the anchors are referred to as 'alters' and form a subsample next to the main sample, which consists of primary respondents. Since we are interested in decision-making within couples, we use information from anchors and their spouses.

The first wave of the NKPS panel had a response rate of 45 per cent, which resembles response rates of other large-scale family surveys gathered in the Netherlands (Dykstra et al., 2004). The overall response rate of the second wave approaches 74 per cent. The response rate of the partner questionnaires used in this study, which were collected during the first wave, is 72 per cent.

Initially, we have information of about 3400 couples, but couples had to meet a number of selection criteria to be included our analysis. First of all, we only included heterosexual couples who had at least one child at the first wave and who were still together at wave 2. We do not look at childless couples since the fertility norms that we examine refer to the ideal *number* of children. Very few respondents have zero children as the ideal number of children, which makes it impossible that this norm would affect the transition to a first child. Studies on higher- order parity decisions among parents with at least one child are scarce but useful, because couples with a child already made the transition into parenthood. As a result, parents are already confronted with pleasures and costs related to parenthood (Dey & Wasoff, 2010; Dommermuth et al., 2011). Second, only couples with a wife of age 45 or younger at the time of the first NKPS round were asked about their demographic behavior between the two waves. After this age selection, 991 couples have a valid score on the variable assessing fertility behavior. Third, we restricted the sample further by excluding couple's with missing scores on our independent variables of interest, namely one's current parity and family size norm. After all selections, our sample consists of 887 couples with two-sided information on all variables that are part of our analyses. Descriptive information on all variables is shown in Table 2.1.

### 2.3.2 Measures

#### *Fertility behavior*

The dependent variable in this study concerns demographic behavior that occurred between the two waves of NKPS. In order to assess whether respondents experienced an additional birth, respondents had to answer the following question during the interview of the second wave: *'Have you and your partner had a child together since ... [date first interview]?'* This question was only asked to female respondents aged 45 or younger and to male respondents with a female partner aged 45 or younger. About 21

per cent of the couples in our sample experienced an additional birth between the two waves. Approximately 13 per cent of the couples experienced the birth of a second child, whereas in six per cent the woman has given birth to a third child. Less than 2 per cent experienced the birth of a fourth or higher order child.

Table 2.1: Descriptive information of all used variables for husbands, wives and couples (N=887)

Variables	Values	Husbands	Wives	Couples
<i>Fertility behavior between t1 and t2</i>				
Birth between two waves	0-1			21.1
Second birth	0-1			13.4
Third birth	0-1			6.0
3+ birth	0-1			1.7
<i>Fertility norms</i>				
Ideal number of children		[ 2.4]	[ 2.5]	
	Husband's ideal < wife's ideal			20.6
	Husband's ideal = wife's ideal			64.8
	Husband's ideal > wife's ideal			14.5
Realization of family size preference	Number of children < ideal number of children	35.1	39.6	
	Number of children = ideal number of children	56.1	52.3	
	Number of children > ideal number of children	8.8	8.1	
<i>Labourmarket participation</i>				
Work hours		[41.5]	[16.8]	
Single earner couples	Wife's work hours <15, husband's ≥ 15			36.4
Dual earner couples	Wife's and husband's work hours > 15			63.6
<i>Control variables</i>				
<i>Socialization</i>				
Religious socialization	None	18.0	18.0	
	Roman Catholic	42.2	41.5	
	Dutch Reformed	17.7	17.8	
	Rereformed	12.2	13.0	
	Other denomination	6.1	5.4	
Number of siblings	0-14	[ 2.7]	[ 2.4]	
<i>Demographics</i>				
Age	20-43 <sup>a</sup>	[38.5]	[35.5]	
Educational attainment	1-10	[ 5.8]	[ 5.9]	
Number of children at t1	One child, 5 years at most			19.5
	One child, > 6 years old			5.4
	Two children, youngest child 5 years at most			30.0
	Two children, youngest child > 6 years			19.5
	At least three children, youngest child 5 years at most			15.1
	At least three children, youngest child > 6 years			10.5

<sup>a</sup> This is the age range for women, which is limited due to biological restrictions affecting demographic behavior. Men can be older than 46, because men's age is irrelevant in this respect and older men can have a younger female partner.

Scores between [ ] are mean scores.

Source: Netherlands Kinship Panel Study, wave 1 and 2 (2002-2007)

*Fertility norms*

Fertility size norms are measured by asking the respondents about what they think about the ideal size of a family: What is the best number of children for a family? All female respondents, and all but two male respondents, reported family sizes norms from 1 to 5 children. The two outliers (6 and 12 children) were coded to 5 children. Like all other independent variables, the indicators of fertility norms were obtained in the first wave of the panel study. In order to assess whether one's ideal family size affects own fertility, we constructed a variable in which this ideal family size is subtracted from one's parity at t1, an approach which is used in earlier research (Thomson, 1997). This variable, that we will label as 'realization of family size' has three categories; (1) number of children < ideal number of children, where one's ideal is not (yet) realized, (2) number of children = ideal number of children, where one's number of children equals one's family size norm, (3) number of children > ideal number of children, when one's own number of children exceeds reported family size norm during wave 1.

Table 2.2 offers a cross-tabulation of the ideal family size by respondent's parity (at t1). The entries *above the diagonal* refer to cases in which respondents already have more children than their ideal family size (category 1). Respondents *on the diagonal* are in category (2), since their current family size equals the reported family size norm. Respondents in the cells *below the diagonal* have fewer children than their reported ideal family size (category 3). In Table 2.1, it is shown that for approximately 50 per cent of our sample current parity equals the ideal number of children for a family. Among husbands, about 35 per cent did not achieve their ideal family size (yet), whereas among wives almost 40 per cent did not realize their ideal family size. For only about 8 per cent of both husbands and wives, their parity already exceeds their norm about the ideal family size.

Table 2.2: Family size preferences for husbands and wives by current parity (percentages)

Family size preference	Number of children at t1											
	Husbands				Wives				All			
	1	2	3	At least 4	1	2	3	At least 4	1	2	3	At least 4
1	9.5	.2			6.8	.5			8.1	.5		
2	63.8	78.6	29.0	31.8	62.4	72.2	26.2	31.8	60.6	76.8	27.3	36.4
3	20.4	17.1	62.3	22.7	24.0	21.9	60.7	18.2	23.5	18.7	61.2	20.5
At least 4	6.3	4.1	8.7	45.5	6.8	5.5	13.1	50.0	7.7	4.1	11.5	43.2
Total	100	100	100	100	100	100	100	100	100	100	100	100
	(221)	(439)	(183)	(44)	(221)	(439)	(183)	(44)	(221)	(439)	(183)	(44)

Source: Netherlands Kinship Panel Study, wave 1

Table 2.3 shows that in about 35 per cent of the couples the husband's and the wife's family size norms are different. The correlation between husbands' and wives' ideal family size is significantly positive but not very strong ( $r = 0.45$ ). About 25 per cent of the male respondents with an ideal family size of 2 have a partner with an ideal family size of three or more children. More women than men reported higher family size ideals than their spouses, as could also be seen in Table 2.1. Since in one third of the couples there is no similarity in the norms about the ideal number of children of a family, there is ample room to test the consequences of dissimilarity.

Table 2.3: Wives' family size preference by husbands' (percentages)

Wives	Husband			
	1	2	3	At least 4
1	36.4	1.3		2.9
2	63.6	74.1	32.0	22.1
3		20.3	54.5	33.8
At least 4		4.3	13.5	41.2
Total	100	100	100	100
	(22)	(553)	(244)	(68)

Source: Netherlands Kinship Panel Study, wave 1

*Controls: Socialization and demographic characteristics*

Religious socialization is measured by the mother's religious affiliation when the respondent was aged 15. We distinguish five categories: Roman Catholic, Dutch Reformed (more liberal Protestantism), Rereformed (more orthodox Protestantism), other religion (Judaism, Islam, Hinduism, other), and no religious affiliation. The family size of the family of origin, including all (full, step, adopted) siblings, is our second socialization variable. Educational attainment is a continuous variable ranging from (1) incomplete elementary to (10) post-graduate. Whereas the socialization characteristics and education of both spouses will be included in the analysis, only the wife's age is included. Studies on couple's fertility generally analyze the age of only one partner, usually the wife (e.g. Corijn et al., 1996). The correlation between husbands' and wives' age is over .9, which makes it impossible to analyze both variables simultaneously. Wife's age is measured by two variables that control for the bell-shaped pattern of marriage- and fertility behavior (Blosfeld and Huinink (1991).

The two variables are calculated as follows:  $\log=(\text{current age}-15)$  and  $\log=(45-\text{current age})$ .

The parity variable is a combined measure of the number of children and the duration of the current parity. Responses are divided into six exhaustive, non overlapping groups namely (1) couples with 1 child at t1 aged 5 years or younger, (2) couples with 1 child aged 6 years or older, (3) couples with 2 children with the youngest child aged 5 years or younger, (4) couples with 2 children with the youngest child aged 6 years or older, (5) couples with at least 3 children with the youngest child aged 5 years or younger, (6) couples with at least 3 children with the youngest child aged 6 years or older. Couples having 1 child aged 5 years or younger at t1 are the reference category in the regression models.

In our final analysis, we distinguish between single-earner couples and dual-earner couples based on husband's and wives' paid work hours per week, which is measured by the weekly hours of working hours. If the respondent had several jobs, the number of hours was added up. Although a large proportion of Dutch women participates on the labour market, most women with children work a limited number of hours (Roeters et al., 2009). This is why usually the definition of dual-earner couples refers to couples in which both husband and wife work 15 hours a week or more, an operational definition which has been used in former studies examining Dutch dual-earner couples (see for example: Wierda-Boer et al., 2008). Couples, in which the wife works less but the husband works more than 15 hours a week are classified as single-earner couples. Table 2.1 shows that about one-third of our couples are single-earner couples, and that in more than 60 per cent of the couples in our sample both husband and wife work at least 15 hours a week.

### *2.3.3 Method*

The first step in our analysis will be to examine to what extent husbands' and wives' family size norms affect joint fertility behavior between  $t_1$  and  $t_2$ . Two models will be presented. Model 1 includes control variables only and in Model 2 the family size norms of both husband and wife are added. These two models will enable us to clarify to what extent fertility norms have an additional effect on fertility behavior, independently of the effects of socialization and socio-demographic variables. The

comparison of the models also will show to what extent the effect of socialization is mediated by norms.

The second step in our multivariate analyses is to model the consequences of differences in the fertility size norms of husbands and wives by testing the four decision rules. We start with estimating the original model using the following formula:

$$\text{baseline model: } \text{Log } P_{ij} / (1 - P_{ij}) = b_0 + b_1H + b_2W + b_3B + b_jX_j + e$$

where:

$b_0$  = constant

H = dummy variable indicating that *only* the husband has not achieved his ideal

W = dummy variable indicating that *only* the wife has not achieved her ideal

B = dummy variable indicating that *both* husband and wife have not achieved their own ideal

$b_jX_j$  = coefficients of control variables

e = error term

We estimate this model using different constraints for the four decision rules described in the theory section:

Power rule:	Baseline model with constraints $b_1 = b_3$ and $b_2 = 0$
Sphere of interest rule:	Baseline model with constraints $b_2 = b_3$ and $b_1 = 0$
Golden mean rule:	Baseline model with constraints $b_1 = b_2$ and $b_3 = b_1 + b_2$
Status quo rule:	Baseline model with constraints $b_1 = 0$ and $b_2 = 0$

To assess which decision rule fits the data best, we use the Bayesian Information Criterion (BIC) (Raftery, 1986; Raftery, 1995). The value of BIC is calculated using the following empirical formula:  $\text{BIC} = -\chi^2 + (\text{df}) \log (N)$ . In this formula,  $\chi^2$  is the likelihood ratio test statistic for comparing a model of interest with the baseline model, df is the number of degrees of freedom of each model, and  $\log(N)$  is the natural logarithm of the sample size. For "good models" BIC scores have to be negative (Raftery, 1995), and models with a more negative BIC statistic fit the data better than models with less negative BIC scores. The larger the difference in BIC scores, the stronger the evidence that a model with the most negative BIC score is a better-fitting



model. Differences in BIC scores of more than 10 offer very strong evidence for the model with the smallest BIC score Raftery (1995).

## **2.4 Results**

### *2.4.1 The effects of family size norms on fertility*

Table 2.4 shows the results of the logistic regression models for the occurrence of an additional birth between the two waves of the panel study. Model 1 includes the effects of socialization and demographic characteristics only and Model 2 adds husbands' and wives' family size norms to this model. Model 1 reveals that there are no effects of religious socialization but that the numbers of children in both husband's and wife's family of origin significantly increase the likeliness of having another child between  $t_1$  and  $t_2$ . The effect of the wife's number of siblings is considerably stronger than the effect of the husband's number of siblings.

The husband's educational level increases the likelihood to have another child, but the wives' educational level has no significant effect. This could be due to the high correlation ( $r=0.49$ ) between husbands' and wife's educational level. When husbands' education is excluded from the model, the effect of wife's education becomes significant, although it is weaker than effect of the husband's education ( $b = 0.234$ ). A more substantial argument is that the husband's level of education may be a better a proxy for a couples' socio- economic position in this study than the wife's education.

The age of the wife has a large effect on the birth of an additional child. The age effects reported are in line with results found by Blossfeld and Huinink (1991). The effect of  $\log(45 - \text{current age})$  is larger than the effects of  $\log(\text{current age} - 15)$ , which confirms that there is a left-skewed bell-shaped distribution when predicting another birth. Further, the couple's parity at  $t_1$  is of considerable importance. Couples with one child have the largest likelihood to have another child, followed by couples with two (young) children and couples with three (young) children. We note that not only the number of children but also the age of the youngest child is important; families in which the youngest child is 6 years or older are likely to be complete.

Table 2.4: Logistic regression coefficients predicting the occurrence of a birth between two waves (N=887)

		Model 1			Model 2		
		B	SE B	e <sup>B</sup>	B	SE B	e <sup>B</sup>
<i>Fertility norms</i>							
Realization of family size (ref: number of children = ideal number of children)							
Number of children < ideal number of children (husband)					1.371***	.353	3.940
Number of children > ideal number of children (husband)					.417	.726	1.517
Number of children < ideal number of children (wife)					2.167***	.355	8.729
Number of children > ideal number of children (wife)					.880	.754	2.412
<i>Control variables</i>							
<i>Socialization</i>							
Religious socialization (ref: none)							
Roman Catholic (husband)		-.232	.337	.793	-.727*	.381	.483
Roman Catholic (wife)		.381	.344	1.464	.712*	.379	2.038
Dutch Reformed (husband)		-.088	.386	.916	-.208	.434	.813
Dutch Reformed (wife)		.015	.393	1.015	-.050	.440	.951
Rereformed (husband)		-.245	.436	.783	-.487	.489	.614
Rereformed (wife)		-.296	.442	.744	-.492	.483	.612
Other (husband)		-.397	.549	.672	-.845	.597	.430
Other (wife)		.011	.551	1.011	.232	.596	1.261
Number of siblings (husband)		.121**	.061	1.129	.108	.067	1.114
Number of siblings (wife)		.259***	.069	1.296	.163**	.076	1.177
<i>Demographics</i>							
Educational attainment (husband)		.338***	.064	1.402	.351***	.070	1.420
Educational attainment (wife)		.087	.066	1.09	.023	.074	1.023
Log(current age-15) (wife)		3.181**	1.286	24.078	3.320**	1.409	27.664
Log(45-current age) (wife)		5.391***	.983	219.316	5.638***	1.051	281.000
<i>Parity</i> (ref: One child. 5 years at most)							
One child. > 6 years old		-1.455***	.507	.233	-1.404***	.534	.246
Two children, youngest child 5 years at most		-2.348***	.281	.096	-.355	.381	.701
Two children, youngest child > 6 years		-3.047***	.570	.047	-.703	.636	.495
At least three children, youngest child 5 years at most		-3.043***	.420	.048	-.570	.623	.565
At least three children, youngest child > 6 years		-3.549***	1.068	.029	-1.646	1.165	.193
Constant		-24.906			-28.626		
$\chi^2$			390.216			466.581	
df			24			28	
Number of births			187			187	

\*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$  (two-tailed). e<sup>B</sup> = exponentiated .B

Source: Netherlands Kinship Panel Study, wave 1 and 2 (2002-2007)

Model 2 includes the fertility norms of both husband and wife. It is clear that norms affect the odds of experiencing another birth. Compared to respondents for whom the number of children equals their preferred family size, those having fewer children than their norms about the ideal size of a family have higher chances of experiencing the birth of another child. This result is found for both husbands and wives, which again stresses the usefulness of a couple's perspective. Model 2 also answers the question whether norms mediate the effects of socialization. This is clearly the case since the coefficient of the number of children in a woman's family of origin is reduced by more than one third. However, the effect of the number of children in the husband's family of origin hardly changes when norms are included in the model. Other effects of socio-demographic characteristics found in model 2, such as husbands' educational level and wife's age do not change much once the fertility norms of both partners are added. Interestingly, in Model 2 a Roman Catholic family background has a significant negative effect on another birth. Apparently the effect of Roman Catholic socialization was suppressed in Model 1, probably because the family size norms of Roman Catholics are relatively strong.

#### *2.4.2 The consequences of differences in norms*

We distinguished four decision rules by which couples handle dissimilarity in family size norms. Table 2.5 shows the test statistics of the models for these decision rules. First, we look at all couples. The baseline model fits the data well with a negative BIC. The golden mean model has the most negative BIC and is the preferred model, which implies that when spouses have different norms about the ideal family size they do generally end up in the middle. The second best fitting model is the sphere of interest which argues that if norms differ, wives have a stronger influence on joint fertility behavior than husbands. The third best fitting model is the status quo model, and the worst fitting model is the power rule. We infer that male dominance in the decision-making process is unlikely.

Table 2.5: Model selection criteria for the decision rules

		All couples			Single-earner couples (N=309)			Dual-earner couples (N=540)		
		Mean workhours husbands: 41			Mean workhours husbands: 44			Mean workhours husbands: 43		
		Mean workhours wives: 17			Mean workhours wives: 3			Mean workhours wives: 25		
Model	Decision rule	$\chi^2$	df	BIC	$\chi^2$	df	BIC	$\chi^2$	Df	BIC
1.	Original model	462.87	22	-313.54	133.06	22	-6.93	329.32	22	-190.91
2.	Power rule	421.60	20	-285.84	114.18	20	0.49	299.84	20	-174.01
3.	Sphere of interest rule	447.44	20	-311.68	117.45	20	-2.78	318.38	20	-192.55
4.	Golden mean rule	460.49	20	-324.73	125.77	20	-11.10	326.37	20	-200.54
5.	Status quo rule	440.32	20	-304.56	131.28	20	-16.61	304.23	20	-178.40

Source: Netherlands Kinship Panel Study, wave 1 and 2 (2002-2007)

Second, our results partly support our hypothesis regarding differences in decision making between single and dual-earner couples. As expected, single - and dual-earner couples follow different decision rules. For single-earner couples the status quo rule is the best fitting model whereas the golden mean rule characterizes decision making among dual-earner couples. Instead of gender-specific decision making, postponement of another birth is most likely in case of different fertility norms among single-earner couples. An explanation for this might be that single-earner couples have a lower income level; this income restriction is likely to delay a second or higher order birth. Previous research already demonstrated that higher- income couples, whether obtained through family cash benefits or not, continue subsequent childbearing more rapidly than lower-income couples (Gauthier, 2007; O'Malley Borg, 1989).

In line with our expectations, both spouses equally influence the decision making process in dual-earner families. As Table 2.6 shows, the second best fitting model among dual-earner families is the sphere of interest model, which further suggests that children remain mainly women's responsibility even when both husband and wife participate on the labor market.

Table 2.6: Results of BIC scores for the four decision rules

	Best fitting model	Second best fitting model	Third best fitting model
All couples	Golden mean	Sphere of interest	Status Quo
Single-earner couples	Status quo	Golden mean	Sphere of interest
Dual-earner couples	Golden mean	Sphere of interest	Status Quo

## 2.5 Conclusion

In this study we examined the joint influence of husbands' and wives' fertility norms on the occurrence of a birth between two waves of the *NKPS* panel study. Fertility norms refer to whether or not one has achieved one's reported ideal family size. Our study revealed some interesting results. To start with, it appeared that in more than one third of the couples in our sample, husbands and wives hold dissimilar fertility norms. In case of dissimilar fertility norms, wives generally prefer larger families than their husbands.

The next step of our analysis focused on the role of fertility norms in predicting fertility behavior. We tested whether one's unachieved family size

norm affected the odds of experiencing a birth between the two waves. Here, we found that both husbands' and wives' preferred family size increased the likelihood of having another child. In the next model, the socio-demographic background of both husband and wife was included. Again, our analyses yielded interesting results, from which some are in line with findings from previous studies and others are not. For instance, in line with Steenhof and Liefbroer (2008) we found that socialization characteristics, such as the number of children in the family of origin affect fertility behavior in later life. This is quite a remarkable result since several researchers have claimed that intergenerational transmission of fertility is less likely in contemporary society because of a number of reasons. First of all, the socio-economic circumstances in which both parents and their children are raised differ significantly. Nowadays children are encouraged to make their own decisions which is why parental influence might be weaker (Steenhof & Liefbroer, 2008). Second, the intergenerational transmission of educational attainment, which is also related to one's norms, is weakening in several Western countries such as the Netherlands (Steenhof & Liefbroer, 2008). Despite all this we found empirical evidence for the intergenerational transmission of fertility behavior. We think that fertility behavior is transmitted through fertility norms. It is argued that intergenerational transmission of fertility norms is likely to occur when norms within society are less strict (Steenhof & Liefbroer, 2008). Previous research has shown that the Dutch population holds rather weak fertility norms, the acceptance of voluntary childlessness, for instance, is very high (Noordhuizen, de Graaf & Sieben, 2010). When generally shared norms are absent, individuals tend to rely on norms expressed by members of their personal networks to avoid uncertainty, which is why parental influence on norms is likely to occur.

Although it has been assumed that norms have a mediating effect, this has not been tested empirically. In order to test the mediating role of norms, we analyzed a complete model in which both socialization factors and fertility norms are included. When the effect sizes of the socialization variables in the full model are compared with those from the model in which only these socialization factors are estimated, most effects do not change. The effect of the size of the

family of origin decreased noticeably once fertility norms were included. We conclude that there is empirical evidence for the mediating role of norms.

How do couples make a decision about having another child if they have different norms? In order to answer this question we tested four decision rules. The first two decision rules assume husband and wife dominance respectively. The power rule argues that, due to their easier access to economic resources, husbands have the strongest negotiating position. This is why their fertility norms would matter more than wives'. The second decision rule, the sphere of interest rule, predicts the opposite. Wives' fertility norms play a more important part in couple's demographic behavior, because care for children remains principally a woman's responsibility. Third, the golden mean rule argues that both husbands' and wives' fertility norms equally affect fertility behavior. The final decision rule, the status quo rule states that husbands and wife with dissimilar norms will postpone the decision to have another child.

The outcomes of the analyses are clearly in favor of the golden mean rule. In case of diverging ideals joint fertility decisions generally do end up in between. This would mean that in half of the couples with dissimilar norms husbands' norms matter more than wives' norms and vice versa. The sphere of interest is the second best fitting model, which suggests that if one partner dominates the decision-making process, this is usually the wife.

We also looked at differences between couples in which both spouses work and couples with a male breadwinner. The main difference between these couples is that in single-earner couples husband and wife are most likely to postpone an additional birth when they hold dissimilar fertility norms. Apparently, there is a veto right of the spouse with the lowest fertility norm. If the husband is the spouse with the lowest fertility norm, he can apparently use his economic power in the decision process. However, it is also obvious that he cannot do this when his wife has the lowest fertility norm. Then, the wife can use her sphere of interest power to postpone an addition child birth. In dual-earner couples the golden mean rule has the best model fit. Resources are in balance and husbands and wives are equally influential in the decision making process.

Interestingly, regardless of the couple's work arrangement, the power rule is the worst fitting model, which leads us to conclude that male dominance

in the fertility decisions of Dutch couples is very unlikely. Although Dutch women are still economically disadvantaged with respect to labor market participation and work hours, our analysis makes clear that this does not limit their decision-making power regarding fertility behavior. The results of this study are in line with earlier research disputing the relevance of power theory in modern more egalitarian societies. Tichenor (1999), for instance, found that in status-reversal couples in which wives earn more than their husbands, wives do not have more decision making power than their husbands. We conclude that our study demonstrated the importance of fertility norms of both spouses. The multi-actor approach is useful, since both husband's and wife's norms affect fertility behavior. In the Netherlands knowing the fertility norms of only one spouse is not enough to predict fertility behavior because there are substantial dissimilarities between the norms of husbands and wives.



**CHAPTER 3**

***EXPLAINING FERTILITY NORMS IN THE NETHERLANDS:  
THE INFLUENCE OF SOCIO-DEMOGRAPHICS, FAMILY  
NETWORKS, AND LIFE COURSE EVENTS  
ON PRONATALISM<sup>2</sup>***

The study described here advances our understanding of fertility norms by examining whether fertility norms remain stable over time. In addition, this paper also investigates whether these norms are influenced by (1) socio-demographic background characteristics, (2) fertility norms of close family members: partners, siblings, parents and children, (3) life course events. Two waves of the Netherlands Kinship Panel Study (NKPS) are used. This dataset contains multi-actor data: family members are interviewed separately. First, analyses revealed that fertility norms are quite stable over time. Second, fertility norms appeared to be related to respondent's educational level and religious socialization. Furthermore, life course transitions are an explanation for holding (in)tolerant fertility norms as well; e.g. gaining a partner increases one's pronatalism level, whereas losing a partner between the two waves causes a decrease in pro-childbearing views. Finally, fertility norms held by the kin network matter, but only to a limited degree.

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<sup>2</sup> This chapter was co-authored with Prof. Dr. Paul de Graaf and Dr. Inge Sieben. This paper is published as: Noordhuizen, S., de Graaf, P. M. & Sieben, I. (2011). Explaining fertility norms in The Netherlands: The influence of socio-demographics, family networks, and life course events on pronatalism. *Journal of Family Issues*, 32, 1647-1673. Earlier versions were presented at the European Survey Research Association Conference, June 2009, Warsaw, Poland and at the Dutch Demography Day (Nederlandse Demografiedag), October 2009.

### **3.1 Introduction**

The Netherlands has a world-wide reputation for its liberal value climate. Since the late 1960s, Dutch society has become more open-minded and tolerant with respect to personal autonomy. Well-known examples are the acceptance of euthanasia (Jaspers, Lubbers & De Graaf, 2007) and the acceptance of divorce, pre-marital sex and homosexuality (Jaspers, Lubbers & De Graaf, 2007; Kraaykamp, 2002). Nevertheless, in this climate of liberal values there are quite some individuals who hold rather strict and conservative ideas about family issues. In this study, we set out to explain why this is the case and focus on pro-childbearing norms. In the literature, these norms are often referred to as pronatalism: standards about the centrality of children and the degree to which members of society hold positive feelings towards parenthood (Jones & Brayfield, 1997). We aim at clarifying the occurrence of conservative ideas with regard to having children (pronatalism) by measuring the extent to which people agree with statements arguing that it is a duty towards society to have children or that one's life is incomplete without children.

In order to explain why some people hold more strict and conservative norms about having children and parenthood than others, we propose three types of explanations. First, we expect socio-demographic background characteristics such as gender, educational attainment, age, religious socialization, and partner- and parental status to be of considerable importance in examining differences in levels of pronatalism. In previous research, these determinants have proved to affect different kinds of norms and values, such as moral values (Kraaykamp, 2002), gender role values (Kalmijn, 2003) and family values (Gelissen, 2003).

Second, we investigate the role played by the family network one belongs to. We answer the question to what extent pro-childbearing norms are influenced by the pronatalism of close family members such as the partner, siblings, parents or children. The family is an established and given network. Most people spend much time in the presence of family members, i.e. the family context (Mollenhorst, Volker & Flap, 2008), and research has shown that kin members are an essential source for discussing personal matters (McPherson, Smith-lovin & Brashears, 2006; Mollenhorst et al., 2008; Sutor & Keeton, 1997).

Within social networks, kin members, compared to non-kin members, have higher chances to remain an important intimate discussion partner over a longer period of time, even after experiencing life course transitions that produced substantial changes in one's position within society (Suitor & Keeton, 1997). Finally, networks consisting of family members appear to be more close-knit and dense, which might lead to concentration of certain ideas and values (McPherson et al., 2006). Therefore, the family network one belongs to is expected to be an influential factor in explaining why some individuals hold more conservative childbearing norms than others.

Our third explanation focuses on life course transitions such as entering a stable partner relationship, and having a first or additional child. Previous research indicated that these life course events affect family values including fertility aspects because of new experiences and changing social interaction patterns (Axinn & Barber, 1997). In addition, once a transition has occurred, people tend to legitimate their decision by holding corresponding norms and values (Moors, 1996).

To investigate the influence of socio-demographics, family networks, and life course events on pronatalism in a proper way calls for a special research design with multi-actor and panel data. First of all, multi-actor data are preferable, since respondents often are unreliable sources of information when it comes to answering questions about the norms and values of their network members. So far, research on personal networks and fertility mainly relies on these indirect measures only. The *Netherlands kinship Panel Study (NKPS)* we employ here contains information on pronatalism obtained from family members themselves. Next, panel data are a valuable contribution to this line of research, because panel data enables us to clarify the causal order of adaptation processes within and outside networks. By measuring respondents' pronatalism on two moments in time, it becomes clear whether or not individuals adjust their childbearing norms according to their family members or to life course transitions they make. Moreover, panel data make it possible to assess individual stability or change in levels of pronatalism. In this way, more knowledge is gained of how the general value climate develops in which individual fertility decisions take place. The ideological and normative environment people live in

offers an explanation for societal shifts in fertility related preferences and behavior, because people prefer to receive social support for their fertility behavior and try to avoid social sanctions caused by displaying abnormal and deviating behavior. Therefore, next to economic factors and contraceptive technology a societies' system of norms and values play a part in changing birth rates over time.

### **3.2 Theoretical background**

#### **3.2.1 Explanation 1: Socio-demographic background**

In order to find out which members of Dutch society hold strict norms about having children, we examine the following socio-demographic factors: gender, age, educational attainment, religious socialization, partner status, and parental status. With respect to gender, two lines of reasoning can be distinguished. On the one hand, women are expected to have higher levels of pronatalism than men because of different socialization processes. It has been claimed that during socialization, young girls are often confronted with the general expectation to become a mother someday (Jones & Brayfield, 1997). This focus on the mother role makes that women are thought to hold more conservative ideas about childbearing and parenthood than men. On the other hand, studies show that women have more positive attitudes towards childlessness than men, presumably because of higher opportunity costs (Koropeckyj-Cox & Pendell, 2007; Thornton & Young-DeMarco, 2001). Next to economic costs such as lost wages and career advancement, the so-called "motherhood penalty," mothers in general are more involved in parenting than fathers, leading to greater personal costs in terms of time commitment, sacrifice and stress (Budig & England, 2001). Furthermore, studies examining long term value changes revealed that women embrace value changes or shifts from traditional to modern values more easily than men (Thornton & Young-DeMarco, 2001). We therefore believe that both the awareness of costs related to motherhood and the exposure to changing societal gender values at a later age will outweigh socialization processes. Drawing on the aforementioned, *we expect women to have weaker pronatalist views than men*. In the empirical section of this study, we will run separate analyses for men and women, because some earlier studies have reported that

some effects of socio-demographic background on fertility values may differ by gender (see for example Koropecj-Cox & Pendell, 2007).

Another socio-demographic aspect in this study is age. In general, younger people are believed to have less traditional views compared to older people (Inglehart, 1977; Inglehart & Baker, 2000), as each age group experiences different societal events during socialization, which leave an imprinting stamp on a person's beliefs, values and attitudes (Ryder, 1965). One's level of pronatalism thus reflects the social and economic circumstances in society during socialization and is assumed to crystallize into a stable orientation, which becomes resistant to change (Alwin, 1990). Therefore, we expect *people from older cohorts to hold stronger pronatalist views than people from younger cohorts*.

In addition, numerous studies have shown that the educational system is an important socialization force, which causes long-term changes in people's ideas and values. By transmitting knowledge and skills, the educational system also teaches tolerance towards heterogeneity. In addition, education increases one's "breath of perspective" (Gabennesch, 1972) and makes more critical towards traditional values and more open to new ideas and arguments. Furthermore, when people attend higher education, they will be more aware of the costs that go with parenthood, which is why they will be more liberal in their outlook on fertility issues. For these reasons, we assume *the higher educated to hold weaker pronatalist views than the lower educated*.

Next, in research on fertility related issues attention has been paid to religiosity, as religious ideologies all spread pro-family messages (Zhang, 2008). Here, we focus on religious socialization, since current religious participation cannot exclusively be considered to cause certain family norms and values. It could also be a consequence, as, for instance, people might leave church because they disapprove of the pronatalist ideas expressed during religious services. Since religious socialization occurred earlier in time than our measurement of childbearing norms, it makes the order of causality clear-cut. Besides, previous research has shown that religious socialization might have a long-term impact.

Previous studies on how religion affects demographic values and behavior, however, suggested that significant associations between religious

socialization and fertility values might be lacking, because differences among religious groups might be attributable to differences in socioeconomic characteristics (Goldscheider, 1971; Lehrer, 2009; McQuillan, 2004). When controlling for socioeconomic background by including educational attainment, effects of religion disappear. Goldscheider (1971) labels this the ‘characteristics approach’.

On the other hand, it has been stated that the association between religious socialization and fertility norms persists even after controlling for differing socioeconomic backgrounds. This can be explained using Goldscheider’s ‘particularized theology’ hypothesis (Goldscheider, 1971; McQuillan, 2004). According to Goldscheider (1971), specific teachings of religious denominations cause higher pronatalism levels. That is why we expect the following: *people who are raised in a religious environment will hold stronger pronatalist views compared to those brought up in a non-religious family.*

Finally, we distinguish the different life stages people are in at the moment of the interview and look at partner status and parental status. It has often been claimed that marriage makes people more traditional (Kalmijn, 2003). Moreover, having children is assumed to be of major importance for those having a serious relationship now or in the near future. For economic reasons, raising children as a couple is far more beneficial than having children on one’s own. As a consequence, once people are in a stable relationship, they are likely to experience social pressure, which in turn affects their views of parenthood. Therefore, we believe *people with a partner to hold stronger pronatalist views than people without a partner.*

Parental status is of importance as well. According to previous research, having children tends to make people more traditional, which may lead to adhering to more conservative family values and preferring a more traditional gender role division (Kalmijn, 2003). A second reason why people with children are expected to have higher levels of pronatalism concerns the process of cognitive dissonance, which argues that people adjust their values to their (past) behavior in order to avoid feelings of discrepancy. With respect to fertility norms, people without children might have weaker pronatalist values, because these are not in agreement with their family status. For these two reasons, we

expect *people with children to hold stronger pronatalist views than people without children*. In addition, it is expected that *the more children individuals have, the stronger their pronatalist views will be*. In order to detect processes of cognitive dissonance we will therefore run separate analyses for respondents who are (still) in their reproductive period and those who are not. The group of younger respondents consists of women under the age of 45, men with a female partner under the age of 45, and single men under the age of 48. The age of 48 for single men was chosen because on average the wives of married (and cohabited) men are three years younger than their husbands. It is important to note that the relationship between parental status and values can be assessed in a more precise way by panel analysis (especially with regard to the direction of the causal relation), and therefore we will estimate not only (cross-sectional) regression effects but will also estimate value change as a consequence of change in family status.

### 3.2.2 Explanation 2: The family network

The ideas, beliefs and values that people hold are not formed in isolation, since people are embedded in various social networks and are surrounded by different social contexts (Mollenhorst et al., 2008; Visser & Mirabile, 2004). Therefore, it has often been claimed that the social networks one belongs to play a substantial role in the formation processes of norms and values. According to previous research, people are motivated to hold similar views as their network members for several reasons. Social psychological processes like interpersonal persuasion, conformity, and structural balance clarify why personal networks affect individual beliefs and values (Visser & Mirabile, 2004). To start with, based on *social comparison theory* people are striving for holding correct views (Festinger, 1950). Comparing one's beliefs with the views of someone nearby, in this case a network member, is one important way of checking whether their views are correct (Visser & Mirabile, 2004). Even when objective information is available, people tend to depend on the views hold within the network they belong to. Therefore, Festinger's social comparison theory states that *"an opinion, belief, or attitude is 'correct', 'valid' and 'proper' to the extent that it is anchored in a group of people with similar beliefs, opinions, and attitudes"*. Social networks appear to

be reference groups that provide information on certain situations and realities. But the influence of the social network one belongs to usually goes a step further by (in)directly indicating what beliefs or values are preferable over others. As a consequence, network members are motivated to conform to the standard of the reference group, because by doing so one gains social rewards, i.e. sympathy and acceptance, and avoids social punishments, i.e. rejection (Schachter, 1951).

Another reason why people tend to reconsider their own beliefs when they are not in line with the views of significant others is related to structural balance. At the individual level, it is well-known that people experience cognitive dissonance when holding ambivalent attitudes or values. However, this mechanism seems to be at work within groups as well. According to Priester and Petty (2001) unpleasant feelings arise when people find out that their beliefs differ from the ones expressed by their intimate friends or relatives, even when their own evaluations of an object or situation are univalent.

Previous research clearly demonstrates why the family network is an interesting and relevant factor when examining value stability or change. For instance, several studies on social networks revealed that the family is an important social context from which individuals select core discussion partners or network members (McPherson et al., 2006; Mollenhorst et al., 2008; Suito & Keeton, 1997). Besides, relatives often remain significant discussion partners over a long period of time (Suito & Keeton, 1997). McPherson et al. (2004) compared core discussion networks in the US over two decades, leading to some striking results. In 2004 compared to 1985, core discussion networks of Americans had become smaller and the number of discussion partners, both within and outside the family, had gone down. Nevertheless, the average proportion of kin increased, which is in line with previous research findings, such as Marsden's assumption that American's core discussion networks for a large part consist of family members (Marsden, 1987). Mollenhorst et al. (2008) come to the same conclusion when investigating core discussion networks for the Dutch population. On average, more than 50 percent of Dutch core discussion networks consist of relatives (30 percent) and one's spouse or partner (22 percent).



Another remarkable research finding is that family networks tend to be more dense and interconnected, because kin members often know each other and might be close even without the intervention of another relative (McPherson et al., 2006; Mollenhorst et al., 2008). This so-called *path dependence use of social contexts* illustrates that when a first mentioned confidant is a relative, the chance of meeting a subsequent confidant through family is approximately 29 percent, while this percentage is about 7 when one got to know the first confidant via a friend (Mollenhorst et al., 2008). The assumption that family networks are more close-knit than non-kin networks might affect the level of interpersonal value adjustment. The ideas expressed by the entire group will be more important. Therefore, network members will be more likely to adjust their norms and values to the ones expressed by the entire group, since people have more to gain or lose, because the kin network they belong to is an important network to them. Based on these results it seems likely that individual norms about childbearing and parenthood will resemble the norms of family members. Therefore, our hypothesis with respect to the family network is as follows: *Within families, the pronatalist views of kin network members (i.e. partner, parents, siblings, and children) will positively affect pronatalist views via both inter- and intra-generational ties.*

### 3.2.3 Explanation 3: Life course events

A third explanation for differences in levels of pro-childbearing norms is the dynamic life course perspective. Here, individual norms and values are assumed to change over time because of the life events one experiences (Beets, Liefbroer & Gierveld, 1999; Moors, 1996), such as entering a stable partner relationship and having a first or additional child. Previous research has indeed demonstrated that these events affect family values due to new experiences and changing social interaction patterns (Axinn & Barber, 1997). Because of entering a stable relationship, people with a partner will be more family-orientated than those living on their own without a partner. Therefore, we expect *those having a partner at both measurement moments in time or those gaining a partner between the two survey waves to hold stronger pronatalist views than those who lost a*

*relationship between the two waves or those who did not have a relationship at both times.*

Furthermore, once a transition has occurred, people tend to legitimate their decision by holding corresponding norms and values to avoid cognitive dissonance, a phenomenon also referred to as the *adaptation effect* (Moors, 1996). This mechanism is most likely to operate when a demographic transition has been made. A first or higher-order birth will stress the centrality of children in people's lives (again). Therefore, with respect to parental events, we expect *those who experienced a first or higher-order birth between the two waves to hold stronger pronatalist views than those who did not make the transition into parenthood (yet).*

### **3.3 Data and method**

#### **3.3.1 Data**

In order to assess the influence of socio-demographic factors, family networks, and life course events on individual's level of pronatalism, the *Netherlands Kinship Panel Study (NKPS)* data is employed. The NKPS consists of a two wave random sample of addresses in the Netherlands (Dykstra, Kalmijn, Knijn, Komter, Liefbroer & Mulder, 2004). Respondents were first interviewed in 2002-2004 ( $t_1$ ) and re-interviewed in 2006-2007 ( $t_2$ ). Initially, computer assisted personal interviews (CAPI) were held with 6,026 primary respondents at both waves, the so-called 'anchors'. The CAPI interviews contain information on anchor's socio-economic background and current position and content of specific family relations. After the interview, respondents received a self-completion questionnaire, which mainly focused on personal values and beliefs.

During the first wave, interviewers asked anchors' permission to contact their family network by sending them a written questionnaire. The family members of the anchors are referred to as 'alters' and form a subsample next to the main sample, which consists of primary respondents. For each anchor, an identical set of alters has been approached (if available): the current partner, one of the parents, a sibling, and two children who were at least 15 years old. It is important to note here that all family members, or alters, were selected at

random if there were more living alters of a certain type than needed (Dykstra et al, 2004).

The first wave of the NKPS panel had a response rate of 45 per cent, which resembles response rates of other large-scale family surveys carried out in the Netherlands (Dykstra et al, 2004). The overall response rate of the second wave approaches 74 per cent. The response rates of alter questionnaires, which are all gathered during the first wave, vary between 38 per cent (siblings) and 72 per cent (partners) (Dykstra et al, 2004). For our analyses, we selected those respondents with complete information on pronatalism at both waves. As a consequence, our sample contains information from 5,309 anchors, 1,690 parents, 3,289 partners, 2,354 siblings and 1,820 children.

### *3.3.2 Measures*

#### *Pronatalism: norms about having children*

All anchors and family members in our sample answered identical questions in order to assess their pronatalism level. The computed scales measuring these childbearing norms consist of responses to a series of questions about family and other issues. Respondents were asked to indicate to what extent they agreed with the following statements: (1) One's life is not complete if one has not had children, (2) It's one's duty towards society to have children, (3) I believe that in this world one can only feel totally at ease in one's own family with children, (4) If one never has children, one can never be really happy. Respondents could answer on a 5 point scale, from 1 'strongly agree' to 5 'strongly disagree'. Before computing the pronatalism scale, we reversed all answers so that a higher score on this scale refers to a higher level of pronatalism.

Table 3.1: Percentages of five response categories measuring respondents' pronatalism level at  $t_1$  and  $t_2$  ( $n=5,309$ )

	Item 1: <i>Life incomplete</i>		Item 2: <i>Duty towards society</i>		Item 3: <i>At ease in family</i>		Item 4: <i>Not happy without kids</i>	
	$t_1$	$t_2$	$t_1$	$t_2$	$t_1$	$t_2$	$t_1$	$t_2$
<i>Strongly disagree</i>	24.8	25.2	54.3	51.0	37.2	36.6	50.6	48.0
<i>Disagree</i>	32.5	32.6	33.7	35.2	41.1	42.1	36.7	38.1
<i>Neither agree, nor disagree</i>	19.7	21.2	9.2	11.1	14.6	15.1	9.6	10.5
<i>Agree</i>	15.8	15.0	2.1	1.8	5.5	4.4	2.3	2.3
<i>Strongly agree</i>	7.3	6.0	.6	.9	1.6	1.7	.9	1.1

Source: Netherlands Kinship Panel Study, 2002-2007

Table 3.1 shows the distributions per pronatalism item for both waves. First, the table illustrates that the respondents in our sample are quite tolerant with respect to having children and parenthood, because the majority disagrees with all statements stressing the centrality and indispensability of children in people's lives. This is most evident for the item that states that it is one's duty towards society to have children. Second, the distributions of respondents over the different answer categories appear to remain rather stable over time, since the decrease or increase between our measurement moments in respondents for each category changes with three percent at most. Next, we added up the scores on the pronatalism items and divided them by four, so that a mean pronatalism scale is obtained. These scales are available for anchors at  $t_1$  and  $t_2$  and for alters at  $t_1$ . As Table 3.2 shows, all four items combined, generated reliable pronatalism scales, since the Cronbach's alpha's for both anchors and all alters vary between 0.77 and 0.83.

Table 3.2: Description of pronatalism scales for anchors, partners, siblings, parents and children

	<i>Cronbach's alpha</i>	<i>Mean</i>	<i>STD</i>	<i>n</i>
Anchor t <sub>1</sub>	.803	1.922	.759	5,309
Anchor t <sub>2</sub>	.825	1.931	.767	5,309
Partner	.794	1.981	.749	3,289
Sibling	.789	1.899	.759	2,354
Parent	.773	2.273	.836	1,690
Child	.777	1.851	.699	1,820

*Source: Netherlands Kinship Panel Study, 2002-2007*

### *Anchor's socio-demographic background*

First we estimate the influence of anchor's socio-demographic background characteristics. Gender (with 1 indicating women), age, educational attainment, religious socialization, partner status and parental status are all measured at t<sub>1</sub>. Most of the time, causality is clear-cut because measurements refer to situations in the past, e.g. religious socialization. When causality processes are unclear we also conduct panel analyses. For instance, we unravel the effect of partner status by distinguishing different partner events between the two waves, which will be discussed later. With respect to age, respondents are divided into six age categories, namely 18-29, 30-39, 40-49, 50-59, 60-69, 70-79 years. The youngest age group will be the reference category in our regression analyses. After analyzing the full sample, coefficients for different subsamples are estimated as well. Educational attainment has three categories: the lower educated are those with education ranging from incomplete elementary up to and including lower general secondary. Respondents with an educational level between intermediate vocational and upper general secondary represent the middle category, while respondents with a higher vocational or (post)university training are the higher educated.

Religious socialization is operationalized by asking respondents whether their mothers belonged to a particular faith, religious denomination or church and if so, to which religious denomination she belonged to when the respondent was 15 years old<sup>1</sup>. In the Netherlands, it is important to distinguish different religious categories. We have seven categories indicating religious socialization, namely: No

religious socialization, Roman Catholics, Dutch Reformed, Rereformed, other Christian denominations (i.e. Evangelicals and other Christian denominations), Muslims, and other non-Christian faiths (i.e. Judaism, Hinduism and other). The Dutch Reformed (*Nederlands Hervormden*) are generally the more liberal Protestants and the Re-reformed (*Gereformeerden*) are generally the more orthodox Protestants. The Re-reformed see the bible as the infallible word of God, which serves as a strict moral guidance. Re-reformed communities are characterized by high levels of church attendance and social control. On the contrary, the Dutch Reformed are encouraged to take responsibility in handling the problems of everyday life and not rely on traditional doctrine alone. This is an explanation for lower church attendance rates for Dutch Reformed compared to Re-reformed. In former days church attendance rates of Roman Catholics were somewhere between church attendance rates of the Re-reformed and Dutch Reformed. But between the mid 1970s and mid 1980s church attendance rates of the Roman Catholics and Dutch Reformed are quite similar (Becker & Hart, 2006). The Roman Catholic Church, however, is known for its pronatalistic point of view which encourages members to have a large family. In addition, the Roman Catholic Church expresses clear statements against contraception and abortion (Pearce, 2002; Zhang, 2008). Finally, Muslims are a growing religious group in the Netherlands since immigration started in the 1970s. In 2005, about seven percent of the total population belongs to the Muslim population in the Netherlands (Westoff & Frejka, 2007). Although there is no central authority in Islam, like for instance the Vatican for the Roman Catholic Church, high pronatalism levels for those grown up in a Muslim family are likely to be found. The strong emphasis on the family in the Islam, resulting in traditional values for both men and women with respect to for instance gender roles, might lead to higher levels of pronatalism (Westoff & Frejka, 2007).

For partner status a dummy was created with 1 indicating the presence of a partner. Parental status was measured using the following categories: (1) childless being 40 at most (i.e. reference category), (2) childless aged 41 and over, (3) having one child, (4) having two children and (5) having three or more children. We distinguished between childless anchors being 40 at most and other childless anchors, as the former are likely to enter parenthood in the (near) future, which

might affect their norms about having children and parenthood. For a better understanding of causality processes, partner and parental status will also be analyzed from a life course perspective, as we will discuss in the next paragraph.

### *Life course events*

Next to anchor's socio-demographic background characteristics and the family network one belongs to, life course transitions between the two measurement moments are analyzed. For partner status, four dummy variables are distinguished, namely (1) no partner at both  $t_1$  and  $t_2$  (reference category), (2) no partner at  $t_1$  but partner at  $t_2$  (partner gain), (3) partner at  $t_1$  but no partner at  $t_2$  (partner loss) and (4) no partner at both  $t_1$  and  $t_2$  (long-term single). To assess changes in parental status seven dummies were created. The first five categories are identical to the ones used to measure parental status as a socio-demographic variable, namely; a childless anchor being 40 at most (i.e. reference category), a childless anchor aged 41 and over, anchor has one child, anchor has two children, anchor has three or more children. But this time, these five categories indicate stability in parental status, because respondents only belong to one of these categories if they have this status at *both*  $t_1$  and  $t_2$ . For instance, the 'anchor has one child' category means that respondents reported at both waves to have one child. The two remaining categories indicate changes in parental status; these are first birth between the two waves and higher-order birth between the two waves.

## **3.4 Results**

### *3.4.1 Descriptive Analyses*

In Table 3.3, we present average pronatalism levels for all anchors in our sample for both waves ( $t_1$  and  $t_2$ ). First of all, Table 3.3 indicates that, on average, the Dutch population holds rather weak norms about childbearing and parenthood. In most cases, the mean level of pronatalism is around 2 at most, which is at the lower end of our pronatalism scale, since pronatalism is measured on a 5-point scale. Second, when considering socio-demographic background, it appears that for all characteristics significant correlations between pronatalism levels at  $t_1$  and  $t_2$  are found. Although all differences are significant, effect sizes are small. General norms about having children thus are quite stable between the two

Table 3.3 Average pronatalism levels at  $t_1$  and  $t_2$  for anchor respondents

	n	Mean $t_1$	STD $t_1$	Mean $t_2^a$	STD $t_2$	Correlation $t_1-t_2$
All	5,309	1.922	.759	1.932	.767	.593***
<i>Gender</i>						
Men	2,155	2.002	.794	2.008	.806	.590***
Women	3,154	1.868	.739	1.880	.735	.590***
<i>Age</i>						
18-29	647	1.890	.753	1.928	.750	.518***
30-39	1,256	1.878	.715	1.878	.730	.584***
40-49	1,267	1.849	.738	1.838	.754	.605***
50-59	1,071	1.875	.733	1.891	.751	.594***
60-69	698	2.106	.821	2.105	.779	.636***
70-79	370	2.170	.828	2.223	.864	.516***
<i>Educational attainment</i>						
Low	1,638	2.119	.839	2.098	.826	.570***
Middle	1,721	1.906	.731	1.915	.741	.581***
High	1,950	1.771	.669	1.808**	.712	.594***
<i>Religious socialization</i>						
None	864	1.837	.688	1.842	.706	.550***
Roman Catholic	2,214	1.883	.734	1.897	.753	.577***
Dutch Reformed	1,004	1.948	.749	1.962	.734	.614***
Rereformed	621	1.903	.748	1.907	.742	.602***
Other Christian denomination	167	1.971	.796	2.008	.802	.588***
Muslim	54	3.088	1.027	2.963	1.184	.548***
Other non-Christian denomination	63	2.064	.878	2.083	.855	.464***
<i>Partner status</i>						
No partner	1,322	1.879	.786	1.931***	.795	.574***
Partner	3,987	1.937	.749	1.932	.758	.600***
<i>Parental status</i>						
No kids, 40 at most	1,002	1.748	.690	1.773	.710	.561***
No kids, older than 40	564	1.540	.667	1.591*	.688	.488***
One child	649	1.965	.734	1.978	.774	.579***
Two children	1,810	1.974	.742	1.970	.738	.582***
At least three children	1,284	2.131	.794	2.129	.806	.585***

<sup>a</sup> For each category, paired  $t$ -tests were conducted for comparing differences in mean pronatalism levels over time \*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$  (two-tailed)

Source: Netherlands Kinship Panel Study, 2002-2007.



waves for all categories. After comparing mean pronatalism levels at  $t_1$  and  $t_2$ , only three significant differences were found: For instance, respondents without a partner showed higher pronatalism levels at  $t_2$  compared to  $t_1$ . Furthermore, the higher educated reported higher pronatalism levels during the second wave compared to their scores at  $t_1$ .

When looking at the mean pronatalism levels in Table 3.3, we observe that men hold stronger pro-childbearing views compared to women. With respect to age, we find higher pronatalism levels for both the youngest and oldest respondents in our sample. Next, stricter norms are found for the lower educated, while the higher educated report the lowest pro-childbearing views. Religious socialization clearly affects norms later in life. Those raised in a non-religious background have the lowest pronatalism scores, while those raised within any religious denomination have mean levels close to or exceeding 2. Respondents raised in a Muslim family hold the strongest pronatalism views with average pronatalism scores above or slightly below 3.

Finally, Table 3.3 reveals that respondents with a partner are slightly more pronatalist than respondents without a partner. Differences between the various parental status categories are more pronounced, with those who are much likely to enter parenthood in the future (i.e. childless respondents 40 at most) stronger valuing parenthood compared to those who are childless and older than 40. Moreover, having a large family with three or more children leads to higher pronatalism levels as well. We will come back to these results when we report life course analyses in which we examine the effects of life course changes between  $t_1$  and  $t_2$ .

To find out whether norms about childbearing and parenthood are correlated to the norms held by close family members, we look at Table 3.4. First, the results indicate that, within families, pronatalism levels are interconnected. It appears that the pronatalism levels within generations are more strongly correlated than the pronatalism levels between different generations. In other words, anchor's pronatalism is most strongly correlated to the pronatalism level of the partner ( $r=.336$  at  $t_1$ ;  $r=.282$  at  $t_2$ ) and the sibling ( $r=.158$  at  $t_1$ ;  $r=.144$  at  $t_2$ ), whereas correlations between parents and children range from .115 to .149. Second, anchor's pronatalism level is related to that of kin network members at

both times. A remarkable result is that anchors do not seem to adapt to their family member's norms, because the correlation between anchors' pronatalism and family member's pronatalism at  $t_2$  is smaller than the correlation between anchor and family member at  $t_1$ . This is especially salient for partners.

Table 3.4: Correlations between pronatalism levels of anchors, siblings, parents and children

	Anchor $t_2$	Partner	Sibling	Parent	Child
Anchor $t_1$	.593***	.336***	.158***	.149***	.138***
Anchor $t_2$		.282***	.144***	.115***	.133***
Partner			.040***	.087***	.095***
Sibling				.106***	.057
Parent					.030

\*\*\*  $p < 0.01$  (two-tailed)

Source: Netherlands Kinship Panel Study, 2002-2007

### 3.4.2 Socio-demographic background

We now turn to our multivariate regression analyses. In Table 3.5, we first estimated one general model in which all anchors are included. We first notice that, in line with our hypothesis on gender, women show significant lower pronatalism levels than men. Quite remarkable is our finding that the youngest age cohort in our sample, those between 18 and 29 years old, holds the strongest pro-fertility norms.<sup>2</sup> A possible explanation could be that for the majority of this age group, fertility events are not likely to happen in the near future, since the average age of women at first birth is about 28 in the Netherlands (Rijken & Liefbroer, 2009). Consequently, most of the youngest respondents in our sample are not confronted with the costs of parenthood in their own lives yet.

Next, educational level is linked to one's level of pronatalism. As expected, the higher one's education, the weaker his or her childbearing norms are. The results presenting the effect of religious socialization require further clarification. Compared to respondents not raised within a religious group, those growing up in a Christian family express stronger pronatalism views to some extent. Growing up in the Roman Catholic or Rereformed denomination or not being raised within a religious group, however, does not make any difference. This result is not consistent with our expectation on the effect of religiosity.

These results, however, do not imply that religious socialization is not related to fertility norms at all, as we already discussed in the theoretical section. Table 3.3 already showed that that all kinds of religious socialization are associated with stronger fertility norms. Table 3.5 indicates, however, that after controlling for educational level, some associations disappeared, or weakened. Thus, both the *characteristics hypothesis* and *particularized theology hypothesis* seem to be relevant when considering religious socialization and fertility norms. For instance, both the results of Table 3.3 and Table 3.5 reveal much higher pronatalism levels for those socialized within the Muslim denomination compared to those who did not grow up in a religious family. The association between Muslim socialization and (stronger) fertility norms weakens when including educational level. This confirms that those socialized within a Muslim group have stronger fertility norms compared to those not religiously socialized due to differing educational levels but also specific teachings within the Muslim community.

Furthermore, Table 3.5 shows that, contrary to our expectations, partner status is not related to pronatalism. This finding supports the argument to analyze partner status *events*, which enables us to distinguish those not having a partner for a longer period in time from those who just left a relationship. Parental status, however, is related to norms about childbearing and parenthood. Those having children report stronger pronatalist views compared to non-parents. The number of children is of importance as well since the more children one has; the larger the difference in pronatalism levels is compared to those not having children. Finally, those over the age of 40 and not having children clearly less agree that children are a basic need in people's lives.

For a better understanding of the importance of socio-demographic background, separate analyses are conducted for men and women. We computed interaction effects with gender to test whether the effects of socio-demographic background are different for men and women. Model 4 shows that in all cases the effects of socio-demographic background do not vary by gender, with one exception. Only the positive effect of being socialized within a Muslim family appeared to be stronger for men than for women. We then distinguish younger from older respondents and conducted separate analyses. Here, some significant

differences between old and young emerged. The negative relation between higher education and one's pronatalism level is stronger for older respondents. A plausible explanation for this finding is that in the past gaining a higher educational degree was less common but more relevant. The effect of non-Christian socialization is significantly different, because it stronger affects pronatalism levels of younger respondents. Strikingly, although parental status affects pronatalism levels of both younger and older respondents, the effect is stronger for older respondents. This points at our idea of cognitive dissonance, since older respondents had more time to adapt their values to their family status, but, as discussed above, for a proper test of the effect of family status on values, we need panel analyses. These will be presented below.

### *3.4.3 The family network*

The findings in Table 3.4 suggest that pronatalism levels of family members are interrelated, but do pronatalism levels of family members still matter once socio-demographic factors are included? Analyses (not shown here) show that controlling for socio-demographic features weakens the association between anchor's pro-fertility norms and those of kin members to some extent, but the childbearing norms of family members are still strongly correlated. Furthermore, the results in Table 3.6 show that the norms of kin members remain of significant importance over time. Even when anchor's own life course is included, the pronatalism levels of the partner, a sibling and a child influence the childbearing norms of the anchor. However, no causal relationship is found between the anchor's pronatalism level and that of a parent. As Table 3.3 already indicated, the effect of partner's fertility norms is most pronounced. Finally, the lagged dependent variable method shows that pronatalism levels at  $t_1$  highly affect pronatalism levels at  $t_2$ , which indicates that the fertility values of the members of our sample did not change much in four years.

Table 3.5: Anchor's pronatalism level at  $t_1$  regressed on socio-demographic factors

	Model 1 All anchors	Model 2 Men	Model 3 Women	Model 4 $\Delta$ Men- women	Model 5 Young Aged 18-45 <sup>a</sup>	Model 6 Old aged 45-79 <sup>a</sup>	Model 7 $\Delta$ young - old
Women	-.171***				-.151***	-.195***	
<i>Age (reference category: 18-29)<sup>b</sup></i>							
30-39	-.149***	-.130*	-.151***	n.s.	-.128***		
40-49	-.235***	-.152*	-.270***	n.s.	-.232***		
50-59	-.244***	-.208**	-.243***	n.s.		-.031	
60-69	-.100*	-.009	-.148**	n.s.		.104**	
70-79	-.018	.098	-.065	n.s.		.181***	
<i>Educational attainment (reference category: low)</i>							
Middle	-.148***	-.135***	-.157***	n.s.	-.106***	-.151***	n.s.
High	-.259***	-.261***	-.260***	n.s.	-.182***	-.327***	***
<i>Religious socialization (reference category: none)</i>							
Roman Catholic	.038	.070	.014	n.s.	.052	.000	n.s.
Dutch Reformed	.089***	.106*	.078*	n.s.	.102**	.049	n.s.
Rereformed	.037	.009	.058	n.s.	.076	-.021	n.s.
Other Christian denomination	.113*	.126	.106	n.s.	.122	.088	n.s.
Muslim	1.101***	1.396***	.651***	***	1.173***	.824***	n.s.
Other non-Christian denomination	.223**	.028	.286***	n.s.	.383***	.009	**
<i>Partner status (reference category: no partner)</i>							
Partner	-.005	-.039	.006	n.s.	.008	-.017	n.s.
<i>Parental status (reference category: no kids, 40 at most)</i>							
No kids, older than 40 <sup>c</sup>	-.106**	-.119	-.122*	n.s.			
One child	.272***	.240***	.273***	n.s.	.299***	.333***	n.s.
Two children	.291***	.263***	.294***	n.s.	.267***	.413***	***
At least three children	.417***	.427***	.391***	n.s.	.416***	.527***	***
R squared	.127	.147	.107	.133	.119	.132	.119
n	4,987	2,031	2,956	4,987	2,542	2,445	4,987

\*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$  (two-tailed) Source: Netherlands Kinship Panel Study, 2002-2007 <sup>a</sup> This is the age range for women. Male respondents with a female partner aged 44 at most also belong to the younger age class. We also assigned single male respondents aged 47 at most to the youngest category, because the average age difference between couples in our sample was approximately 3 years. <sup>b</sup> In model 5 the reference category for age is 18-29, whereas in model 6 the age reference category is 40-49. <sup>c</sup> In models assessing differences between younger and older respondents, respondents without children are the reference category

#### 3.4.4 *Life course events*

In order to find out whether our third explanation, life course events, influences childbearing norms as well, we exploit the two-wave panel characteristic of our data. Pronatalism levels as well as partner status and parental status are measured at both  $t_1$  and  $t_2$ , which makes it possible to assess the causal inference of life course events such as change in partner status or parental status on childbearing norms. In general, there are two basic approaches to the analysis of the effects of events on outcomes in two-wave data: the Change Score (CS) method and the Lagged Dependent Variable (LDV) method (Allison, 1990; 1994). Both methods control for the level in the dependent variable at  $t_1$ , but do so in different ways. In the CS method, the dependent variable is a change in outcomes between  $t_1$  and  $t_2$ , whereas in the LDV method, the dependent variable at  $t_1$  is regressed on the dependent variable at  $t_2$ . As both methods have their (dis)advantages and potentially yield different results we display the results of both methods in Table 3.6.

The first two columns of Table 3.6 show that, although there are some differences between the coefficients estimated by the change score method and the lagged dependent variable method, life course transitions explain why some people hold more conservative views towards childbearing and parenthood than others. First of all, losing a partner causes a lower level of pronatalism compared to those who remained single during the survey period. These findings confirm our hypothesis with respect to partner status. Those having a relationship at both times show lower pronatalism levels than those who are not in a relationship during the two waves. Stability as well as changes in parental status also affects people's view on the centrality of children. Table 3.6 shows empirical evidence for our expectation that entering parenthood, i.e. experiencing a first birth between the two waves, leads to higher pronatalism levels than for those who remain childless over time. This is also true for those who experienced an additional birth between the two measurements. Note, however, that effect sizes of these life course effects are significant but quite small.

Table 3.6: Panel analysis predicting anchor's pronatalism levels: change score method ( $\Delta Y$ ) versus lagged dependent variable ( $Y_{t_2}$ ) method

	<i>All anchors</i>		<i>Alter=partner</i>		<i>Alter=sibling</i>		<i>Alter=parent</i>		<i>Alter=child</i>	
	$\Delta Y$	$Y_{t_2}$	$\Delta Y$	$Y_{t_2}$	$\Delta Y$	$Y_{t_2}$	$\Delta Y$	$Y_{t_2}$	$\Delta Y$	$Y_{t_2}$
<i>Pronatalism levels</i>										
Anchor's pronatalism at $t_1$		.549***		.555***		.556***		.537***		.587***
Family member's pronatalism at $t_1$			-.044**	.066***	-.006	.038**	-.022	.019	-.007	.060***
<i>Partner events</i>										
(ref: no partner at $t_1$ and $t_2$ )										
No partner at $t_1$ and partner at $t_2$	.068	.036			.025	-.010	-.007	-.037	.161	.070
Partner at $t_1$ and no partner at $t_2$	-.104*	-.104**			-.183**	-.183**	-.246***	-.216***	.076	-.015
Partner at $t_1$ and at $t_2$	-.043	-.062**			-.052	-.038	-.061	-.090*	.000	-.008
<i>Parental status events</i>										
(ref: no children <40 at $t_1$ and $t_2$ )										
No children >40 at $t_1$ and $t_2$	.064	-.021	-.032	-.121*	-.089	-.146**	-.008	-.053		
One child at $t_1$ and $t_2$	.084	.170***	.025	.101	-.086	.014	.123	.223***		
Two children at $t_1$ and $t_2$	.050	.156***	-.009	.078	-.102	.015	.000	.122**	-.036	.008
3 or more children at $t_1$ and $t_2$	.046	.209***	.000	.130**	-.057	.090	.019	.160**	-.053	.045
First birth between $t_1$ and $t_2$	.108**	.164***	.082	.104*	.095	.117*	.170**	.203***		
Higher order birth between $t_1$ and $t_2$	.001	.176***	-.062	.086	-.017	.136*	.031	.190***	.716	-.262
R-squared	.006	.370	.012	.385	.018	.376	.020	.332	.012	.390
n	4,987		2,922		2,082		1,507		1,552	

\*  $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$  (two-tailed)

Source: Netherlands Kinship Panel Study, 2002-2007

### 3.5 Conclusion

This study examined fertility values in The Netherlands by using rich data from a multi-actor panel survey in the Netherlands, i.e. *Netherlands Kinship Panel Study*. These data have some major advantages. To start with, the NKPS data allowed us to describe current fertility norms in the Netherlands with which we gain insight into the normative climate in which fertility processes and decisions take place. Furthermore, because of the multi-actor structure of the data we were also able to examine fertility norms within the family network by using information from different members of the family. Another major advantage of our data is the two wave structure. This enabled us to examine causality processes properly by conducting panel analyses. It also allowed us to assess the stability of values, because fertility norms are measured at two points in time.

The first main finding from this study is that the average level of pronatalism, which stresses the importance and centrality of children in life, is quite low in the Netherlands. In line with previous studies on value orientations (Gelissen, 2003), the Dutch show high levels of tolerance, since the majority disagrees with statements suggesting that parenthood is or should be a taken for granted aspect of one's life. On average, the respondents in our sample report pronatalism levels below two on a five point scale measuring fertility values. Three theoretical explanations were suggested to clarify differences in fertility values among our respondents: arguments about respondent's socio-demographic background and life course and arguments focusing on the family network one belongs to. All three theoretical approaches seemed to be relevant, but the arguments on anchor's own socio-demographic background and life course receive most support. Men appear to strongly value parenthood, which can also be said about the youngest respondents, aged 18- 29, and the lower educated.

Our hypothesis on religious background has lead to mixed results. Growing up within a Muslim, Dutch Reformed and some other Christian as well as non-Christian groups, e.g. Judaism, and Hinduism, makes a difference, whereas being raised in a Roman Catholic or Rereformed family does not lead to significant differences compared to those brought up in a non-religious family. Our results are in line with previous studies on religion and fertility, which



suggest that associations between religious socialization and fertility norms might be partly caused by differences in socioeconomic background (Goldscheider, 1971; McQuillan, 2004). Nevertheless, some associations between religious socialization and fertility norms persisted after controlling for educational attainment, which in turn points at the importance of specific religious teachings. So although we did not find direct relations between all religious backgrounds and fertility norms, our results report evidence for the assumption that value patterns formed during socialization can actually have a long-lasting influence on the values one holds.

The effect of socio-demographic background is strongest for parental status. As we expected, those who do not have children and those who are unlikely to have them in the future report significantly lower pronatalism levels compared to younger childless respondents, who are much more likely to enter parenthood at some point in time. But the effect of parental status becomes even more visible if we examine those having a large family. This again supports the theoretical arguments proposed in previous research. By expressing values that are consistent with one's own behavior, people can avoid cognitive dissonance and accompanying unpleasant feelings. Due to the panel data used in this study, we were able to test processes of cognitive dissonance accurately. Panel analyses demonstrated that people adjust their values as a consequence of their demographical behavior and experiences to some extent. Entering parenthood by experiencing a first birth strengthens fertility values reported earlier in time.

One of the most striking results is the lack of support for the influence of one's partner status. Distinguishing those with and without a partner did not lead to significantly differing pronatalism levels. Our panel analyses, however, indicated that losing a partner leads to lower pronatalism levels compared to those who did not have a relationship at both points in time. An explanation might be that people tend to emphasize the centrality of family and children less, because they have to continue their lives without their partner, whether this is due to divorce from or the death of their former partner.

However, this argument does not apply to the opposite situation; respondents who entered a relationship between the two waves did not show different pronatalism values compared to those without a partner during both

waves of the survey. Further analyses provided one possible explanation for the lack of evidence for our assumption that entering a relationship would increase one's pronatalism. Those gaining a partner appeared to be a varied group with respect to their parental status; more than half of them had no children, which might lead to a lower pronatalism level. At the same time, almost 5 per cent of those entering a relationship also made the transition into parenthood, which might strengthen one's fertility values. As a consequence, the effect of gaining a partner might be lacking, because of these opposite effects.

To further assess opposing effects and differences between groups in our sample, separate analyses for men and women and younger and older respondents were conducted. Throughout these analyses, we found limited evidence for gender differences in the effects of social-demographic socialization and life-course characteristics on pronatalist values. We also hardly find significant differences in the effects between younger respondents, who are still in their reproductive period, and older respondents. One interesting finding, however, is that the effect of having children on values is somewhat larger for older respondents. This might be due to the longer time older people have had to adjust their fertility values to their family status, and thus to minimize cognitive dissonance. For example, people who remain childless might adjust their pronatalist values in the end; younger people might have not had enough time to complete this process of cognitive dissonance reduction.

Next, we also analyzed whether the kin network one belongs to affects one's fertility values. Primary analyses confirmed that the fertility values of family members are correlated, which supports the idea that people tend to adjust their values to the one's expressed by significant others for the sake of social comparison. Family members' fertility values seemed to be of importance, even after controlling for anchor's socio-demographic background. Panel analyses, by contrast, revealed that family member's pronatalism at the first wave only affected anchor's pronatalism at the second wave to some extent. In general, the effect of intra-generational ties, the partner- and sibling relationship, appeared to be most strong although parents were also affected by the fertility ideas expressed by their children.

To conclude, the results of our analyses further underline the general and persistent nature of the norms examined in this study. Fertility norms did not change much between the two waves, which is in line with what previous research calls the 'durable' character of values (Hitlin & Piliavin, 2004). We also showed that norms are only to a small extent influenced by the kin network, and we found only limited effects of changes in a person's partner and family status on fertility values. Fertility values apparently are part of a more general value pattern in the Netherlands, which is characterized by strong permissiveness to deviant behavior. Although the majority of the Dutch population has families, and prefers to live with children, only a small minority is prepared to say that all people should have children or that people without children are anti-social and cannot be happy.

*Notes*

1 With respect to religious socialization we decided to use mother's religious denomination only, because in more than 87 percent of the cases fathers and mothers belonged to the same religious community when their child was 15 years old.

2 Not including life stages leads to a different age pattern. In this case, the two oldest cohorts appear to hold stonger pronatalist views than the youngest cohort, as hypothesised in the theory section.

**CHAPTER 4**

***THE PUBLIC ACCEPTANCE OF VOLUNTARY  
CHILDLESSNESS IN THE NETHERLANDS:  
FROM 20 TO 90 PER CENT IN 30 YEARS<sup>3</sup>***

Within a relatively short period of 30 years, public acceptance of voluntary childlessness has increased enormously in the Netherlands. In this chapter, we address two research questions, which we answer with data from 13 waves of the repeated cross-sectional survey Cultural Change in the Netherlands (CCN, 1965-1996). First, we investigate to what extent the increasing permissiveness is due to cohort replacement and to intra-cohort change. We find that between 1965 and 1980 the change is primarily due to intra-cohort (period) effects, whereas cohort replacement has become more important since 1980. Second, we address the question which social categories constitute the 10 per cent of the population who do not accept voluntary childlessness. Church attendance – and not religiosity or religious socialization – turns out to be the most important factor. Low levels of income and education also negatively affect the acceptance of voluntary childless.

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<sup>3</sup> This chapter was co-authored by Prof. Dr. Paul de Graaf and Dr. Inge Sieben. This paper is published as: Noordhuizen, S., de Graaf, P. M. & Sieben, I. (2010). The public acceptance of voluntary childlessness in the Netherlands: From 20 to 90 per cent in 30 years. *Social indicators research*, 99, 163-181. An earlier version of the paper was presented at the national sociology conference (Dag van de Sociologie), May 2008, Leuven, Belgium.

#### **4.1 Introduction**

In this paper, we investigate sociological aspects of the rapid increase in the public acceptance of voluntary childlessness in the Netherlands. In the 1960s, only 20 per cent of the Dutch population accepted that a couple preferred to remain childless, and in the 1990s this proportion has increased to 90 per cent (Survey CCN 1965-1996, own calculations). This strong change in the social norms about family planning has gone together with declining fertility rates. International comparisons show that the decline in fertility has had a comparatively strong momentum in the Netherlands: In 1960 the Dutch fertility rate was above the European average and in 1980 it was below the European average (Castles, 2003).

Childlessness concerns both social scientists and policy makers, and quite some research has focussed on the individual determinants and consequences of childlessness (cf. Dykstra & Hagestad, 2007; Keizer et al., 2007; Koropecj-Cox & Call, 2007). Others have been more interested in more general causes and consequences of increasing childlessness. Van de Kaa (1987) and Lestheage (1995) interpreted the decline in fertility rates as part of a broad process of social change, which they labelled as the Second Demographic Transition. Important elements of this process are the rise of cohabitation as an alternative to marriage, the increasing age at motherhood, and the increase of divorce. These behavioural issues have followed similar patterns, and, importantly, have gone hand in hand with changes in values on fertility and family planning.

One of the most important instigators of the Second Demographic Transition is seen in the changing division of labour between men and women as a result of increases in women's educational attainment and in the growing permissiveness of the labour market participation of women, especially of mothers. The main argument is that rising levels of women's human capital have increased the costs of having children. Simultaneously, there has been technological innovation with regard to birth control and family planning. Contraceptive methods have become widely available, and parenthood has become more a choice than an almost unavoidable event (Hakim, 2003).

The shifts in fertility behaviour and fertility norms in the Netherlands are shown in Figure 4.1. The statistics display a sharp decline in the number of births

in the Netherlands. The birth rate dropped from about 90 children per thousand women aged 15 to 50 years in 1965 to 50 children per thousand women in the 1980s. In the same period, the Dutch population has become more permissive towards voluntary childlessness, as indicated by the dots. The strong decline in norms is the object of our study<sup>1</sup>.

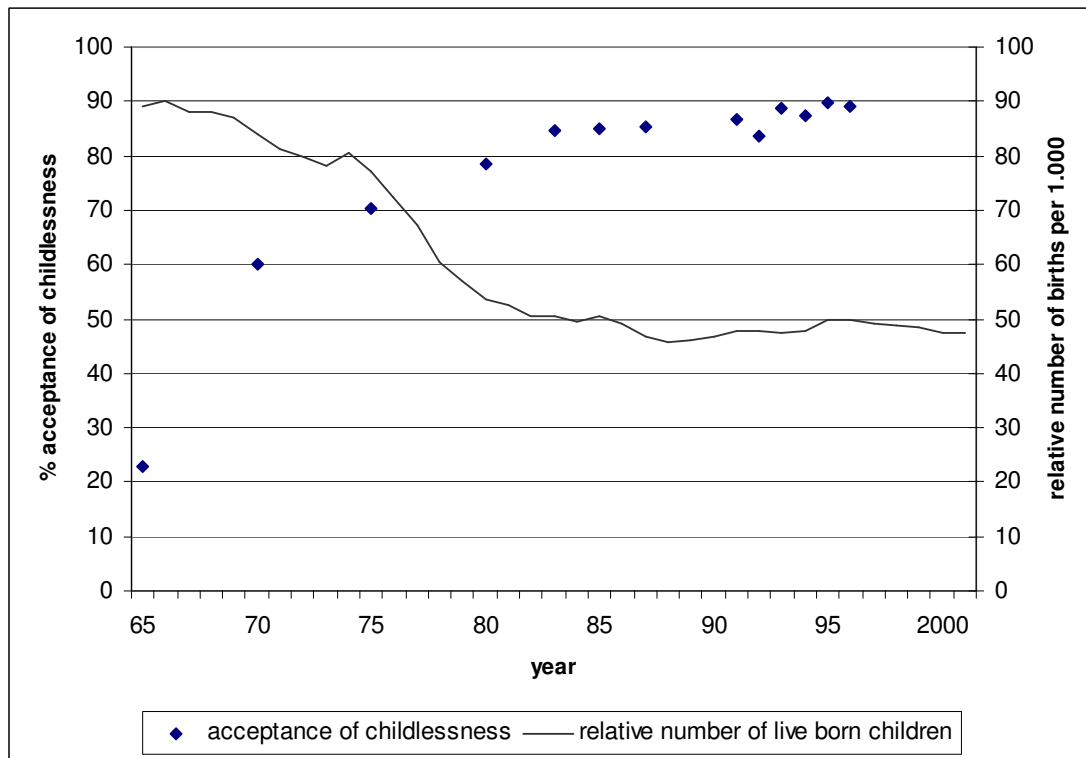


Figure 4.1 Relative number of live born children<sup>a</sup> (fertility behaviour) and acceptance of voluntary childlessness<sup>b</sup> (fertility norms) by survey year

<sup>a</sup> Relative number of live born children: The number of live born babies per thousand of the average number of women aged 15 to 50 in the period of observation. Live born child: A baby showing some sign of life after birth, regardless of the duration of pregnancy. Source: Statistics Netherlands at [www.cbs.nl/statline](http://www.cbs.nl/statline)

<sup>b</sup> Source: Cultural Change in the Netherlands (CCN) surveys

We address two research questions about the change in public support for voluntary childlessness in the Netherlands. First, we investigate whether the overall change has come about by cohort replacement or by intra-cohort changes (cf. Firebaugh 1997). *Cohort replacement* explains (part of) the overall change if younger birth cohorts are more permissive towards voluntary childlessness than older birth cohorts. The underlying assumption is that values and norms are socialized during childhood and early adulthood and are relatively resistant to

change over the life-course (Inglehart, 1977). *Intra-cohort change* would explain (part of) the overall change when members of some or all birth cohorts become more permissive over a given time-span. Changes in the values of a birth cohort can come about by two processes, by period effects and by life-course effects. Period effects are effects of contextual nature that affect all people, young and old, in similar ways, like economic or political conditions. Life-course effects are age-dependent and have to do with personal development as affected by experiencing life events such as marriage, divorce, and having children.

Using repeated cross-sectional data –which is the research design we are using– makes it possible to distinguish between cohort replacement and intra-cohort effects, for intra-cohort change shows up as period effects in a regression model in which birth cohort is controlled for (Firebaugh, 1997). It is important to note that the fast increase in the percentage of the Dutch population approving voluntary childlessness logically cannot be the result of cohort replacement only, since the part of the population that has been ‘replaced’ in a period of thirty years is not large enough to account for the major changes that have taken place. However, it remains very interesting to decompose the general trend into cohort replacement and intra-cohort changes, and in this paper we set out to answer this question.

The second research question we address in this study is about the declining part of the population who is not supporting voluntary childlessness. Nowadays, about 90 per cent of the Dutch population approves a couple’s decision to forgo parenthood. Who are the remaining ten per cent of the population who do not adhere to the modern value that the individual preference to remain childless should be respected? To answer this question, we explore differences in fertility norms with respect to gender, family structure, educational attainment, income, and urbanization, and we pay special attention to differences between the religious and the non-religious parts of the population. Within the religious part of the population we will investigate differences between the three major denominations in the Netherlands (Roman Catholics, Dutch Reformed, and Re-reformed), and differences between churchgoers and those who do not visit church on a regular basis.



By answering these two questions, we hope to gain more insight in the rapid change in acceptance of voluntary childlessness. We think that doing research on this topic is important because of two reasons. First, there is the scholarly fascination to study a norm that has changed so fast in such a short period. Second, the origins of social change for this norm are important for society and policy because it is related to decreasing fertility. To what extent does the development towards less emphasis on pronatalist values come about by cohort replacement and to what extent by intra-cohort changes (period effects)? Before we address our research questions empirically, we first describe some major economic and cultural trends that occurred in the Netherlands since the 1950's, followed by an outline of the research literature and the prevalent ideas on change in values about voluntary childlessness.

#### *4.1.1 Economic and cultural modernization in the Netherlands*

Between the 1950s and the 1970s the Netherlands experienced a strong modernization process, of which we here highlight some important aspects. First, average income increased rapidly. The development of the Gross National Product per capita, expressed in 1999 Euros, shown in Figure 4.2, displays this development. In 1950, GNP per capita was 4,470 euro and in 1996 it had increased to 17,950 euro per capita (Statistic Netherlands, 2009; own calculations<sup>2</sup>). This represents an average growth in income of 3.1 per cent per year, corrected for inflation.

Second, growing income is often seen as the driving force behind value change (Alwin & Scott, 1996; Inglehart, 1977; Ryder, 1965). Inglehart's theory of value change argues that growing prosperity and the fulfilment of basic material needs make that younger generations started to reject so-called materialist values and moved on to post-materialist values. Important elements of the new value pattern was a focus on personal autonomy, self-actualisation, and tolerant values. Large proportions of the population drifted away from traditional values in the 1960s and 1970s (de Graaf, 1988; Inglehart, 1977; 1990; 1997). An important part of the cultural modernization process was that sex roles have become less strong. Traditional values about how men and women

should lead their lives have eroded, and women got the same rights as men to work on the labour market (van der Lippe, 1993).

Third, the process of economic and cultural modernization has gone together with a fast secularization process. The moral guidance of religion in general and of churches and church leaders in particular has come under pressure, and the clash between modern values and the official, pro-family, doctrine of religious ideologies lead to secularization. Figure 4.2 shows that in 1950 18 per cent was non-religious, and that this percentage has increase to 40 per cent in 1996 (Becker & de Hart (2006). In the same period the proportion of churchgoers (at least monthly) has decreased to less than one fourth of the population.

Fourth, new contraceptive methods, such as oral contraceptives, became available. The invention of the hormonal birth control pill in the 1950s made that parenthood became much more a choice rather than a biological phenomenon (Hakim, 2003). Oral contraceptives were introduced in the Netherlands in 1962 and were an immediate success (Rensman, 2006). The percentage of women using the birth control pill has risen enormously. In 1962 about 3 per cent of Dutch women in the relevant age category used the birth control pill. In the 1970s this percentage was about 38 per cent, and 1996 it was 46 per cent (Bronsema & Moors, 1994; Rensman, 2006). It is against this background of economic and cultural modernization that we analyse the rapid change in the acceptance of childlessness.

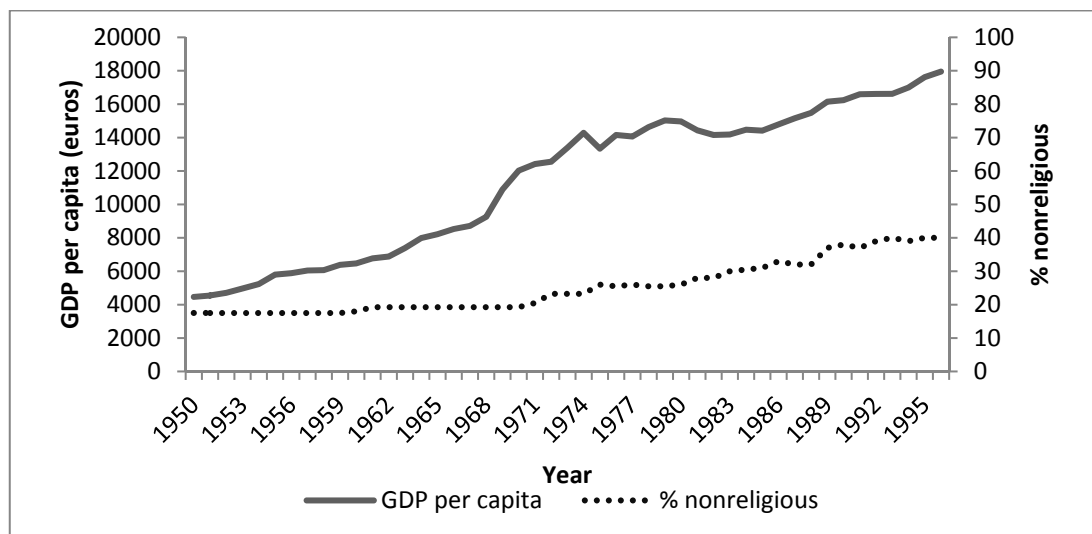


Figure 4.2: GDP per capita and the relative number of nonreligious people by year

Source: Statistics Netherlands at [www.cbs.nl/statline](http://www.cbs.nl/statline)

## **4.2 Theoretical background**

### *4.2.1 Shifts in the public acceptance of childlessness: cohort replacement effects and intra-cohort change*

The first plausible explanation for changing societal acceptance levels of voluntary childlessness is related to cohort membership and the succession of cohorts (Firebaugh, 1997). A cohort can be defined as the aggregate of individuals born in a certain period of time (Ryder, 1965). Each cohort group experiences different societal events during the socialization stage, i.e. childhood and adolescence (Rodgers, 1982). These so-called formative years leave an imprinting stamp on a person's norms, values and attitudes (Ryder, 1965), as these norms reflect the social and economic circumstances in society during socialization (Inglehart, 1977) and are assumed to crystallize into stable orientations which become resistant to change (Alwin, 1990). This argument assumes that cohort groups differ in their fertility norms because they were raised in distinctive historical periods. Research indeed shows that older cohorts tend to be more conservative and traditional (Inglehart, 1977; 1990), and therefore are more likely to disapprove of voluntary childlessness. Younger cohorts, on the other hand, hold more liberal and modern views and are more tolerant towards couples who forgo parenthood. In this perspective, social change may occur because of the natural process of cohort replacement. As a consequence of birth, new, more liberal cohorts enter society and replace the older, more traditional ones who die out, leading to a gradual shift in the acceptance of voluntary childlessness. As this process of change happens slowly and steadily, Inglehart (1977) called it 'a silent revolution'.

A second source of social change describes a process that may lead to a more revolutionary shift in society, namely through changes within cohorts (intra-cohort effects; Firebaugh, 1997). This process refers to attitudinal changes that affect all members present at a certain time in society, regardless of their cohort group (Glenn, 1977). When changes in norms in response to changes in the macro societal circumstances are not restricted to the young generation but refer to older people as well, this can lead to a rapid change of norms in society. It is important to note that this process also implies that people dispose of a lifelong openness to attitude change in contrast to the notion of cohort

replacement, which assumes attitudinal stability after young adulthood (Visser & Krosnick, 1998).

In this paper, we will estimate the contribution of both cohort replacement effects and intra-cohort change to the shift in acceptance levels of voluntary childlessness in the Netherlands from 1965 till 1996. We hypothesize that intra-cohort effects contribute more to this societal change than cohort replacement effects, as the shift towards higher acceptance levels is very large in the period 1965-1980. Changes related to cohort replacement are simply taking place too slow to account for this rapid attitudinal change. From 1980 onwards, changes in fertility norms are less pronounced, which implies that cohort replacement effects could become more important than intra-cohort effects in this period.

#### *4.2.2 Who are intolerant towards voluntary childlessness?*

Given the high public acceptance levels of voluntary childlessness in the 1990s, our second research question is about those who remain intolerant and do not accept voluntary childlessness. First, we will look at socio-demographic characteristics. Previous research has found that gender, family structure, educational level, income, and urbanization are linked to fertility values. Women have more positive attitudes towards childlessness than men, presumably because of higher opportunity costs (Koropecj-Cox & Pendell, 2007; Thornton & Young-DeMarco, 2001).

Next to economic costs such as lost wages and career advancement (the so-called “motherhood penalty”, (see e.g.: Budig & England, 2001), mothers in general are more involved in parenting than fathers, leading to greater personal costs in terms of time commitment, sacrifice and stress (Crittenden, 2001). We also expect that people living with a partner and/or children have lower acceptance levels compared to people that are not in a stable relationship or who are childless (Beets et al., 1999).

Furthermore, individuals with higher educational levels and higher socio-economic positions are thought to be more tolerant than less privileged people. Education increases one’s “breath of perspective” (Gabennesch, 1972; 859) and makes more critical towards traditional norms and more open to new ideas and

arguments. Finally, people living in urbanized areas are expected to hold more tolerant views, because of the more densely populated and socially heterogeneous environment they live in (cf. Carter & Borch, 2005; Wilson, 1985). This implies that city-dwellers are more likely to show higher levels of approval of voluntary childlessness than people living in rural communities.

Next to these socio-demographic characteristics, religion seems to be a key factor when explaining fertility behaviour or values (cf. Zhang, 2008). Religious ideologies all spread pro-family messages, but the strength of these messages depends on the specific religious doctrine of a denomination. In the Netherlands, three Christian denominations can be distinguished: Roman Catholic, Dutch Reformed (*Nederlands Hervormden*, generally the more liberal Protestants) and Re-reformed (*Gereformeerden*, generally the more orthodox Protestants). The Roman Catholic Church propagates a pronatalistic point of view which encourages members to have a large family and is known for its clear statements against contraception and abortion (Pearce, 2002; Zhang, 2008). This pronatalist doctrine was especially strong in the Netherlands, as Roman Catholics occupied a minority position in Dutch society. After an era of persecution, the Roman Catholic Church was granted equal rights in 1795 and tried to strengthen its institutions and societal position in the 19<sup>th</sup> and first half of the 20<sup>th</sup> century (Barrett, Kurian & Johnson, 2001). Catholic clergy actively promoted high fertility rates, for example by visiting married couples without children and by campaigning against breastfeeding (cf. Schellekens & van Poppel, 2006). In the 1960s, the Dutch Catholic Church tried to modernize in order to keep up with changes in society, but the influence of liberal movements was ended by Vatican appointments of conservative bishops. In 1968, the official doctrine of the Catholic Church with respect to marriage and birth control was reaffirmed in the papal encyclical “*Humanae Vitae*” ([http://en.wikipedia.org/wiki/Humanae\\_Vitae](http://en.wikipedia.org/wiki/Humanae_Vitae)).

Strong pronatalist views can also be expected in the group of the Re-reformed, who are divided among several religious communities and churches due to historical schisms (Barrett, Kurian & Johnson, 2001). These orthodox Protestants see the bible as the infallible word of God, which serves as a strict moral guidance. They strongly believe in God’s Providence, which makes that

interventions in matters of life and death are unacceptable. The Re-reformed therefore have clear doctrines against contraception and abortion, whereas family life and children are viewed as very important. In addition, the high level of social control in Re-reformed communities reinforces religious norms regarding fertility. For example, in regular house calls, family members and delegates of the church talk about religious matters in personal life.

The largest group of Protestants in the Netherlands, the Dutch Reformed, can be characterized as more liberal when it comes to fertility issues. First of all, liberal Protestants have been associated with rationalist and pragmatic values (cf. McQuillan, 1999). The Dutch Reformed are encouraged to take responsibility in handling the problems of everyday life and not rely on traditional doctrine alone (de Loor, 1981). In addition, theological multiformity within the Dutch Reformed Church grew since the 19th century (De Loor, 1981), which makes it less obvious for its members to adhere to one official doctrine. This pattern is strengthened by the internal structure of the Dutch Reformed Church, which is less hierarchical and more democratic than for example in the Roman Catholic Church. Furthermore, in order to read the bible thoroughly, the Dutch Reformed place great emphasis on literacy and education, which gives way to more tolerant views. Finally, van Bavel and Kok (2005) mention that the Dutch Reformed see marriage as a bond with mutual support between spouses, which gives room for discussion about birth control.

We expect these religiosity effects to work in several ways. First, people who were raised and socialized in a Roman Catholic, Re-reformed, or Dutch Reformed context, should be affected by the way their church thinks about fertility issues, even if they later in life left their religious denomination. We expect that they are less tolerant towards voluntary childlessness than individuals who were not socialized religiously, and within the group of religiously socialized, that those who were raised in a Roman Catholic or Re-reformed environment are less tolerant than those socialized in a Dutch Reformed context. The same parallel can be drawn for current religious membership. Individuals not belonging to a denomination are expected to show the highest levels of acceptance of voluntary childlessness, whereas the Dutch Reformed are thought to be more tolerant than Roman Catholics and Re-

reformed. These denomination effects are expected to be stronger for those visiting religious institutions regularly. Churches create the opportunity to meet other people with the same religious background. Therefore, visiting religious services stimulates social interaction with people adhering to similar religious ideas. These close-knit networks will further strengthen religious norms regarding fertility. As a consequence, members will adopt the fertility behaviour patterns and values displayed by their network (Zhang, 2008).

### **4.3 Data and method**

#### *4.3.1 Data*

To answer our research questions, we use thirteen waves of the Cultural Change in the Netherlands (CCN) survey (Social and Cultural Planning Office, 1996). The CCN data were collected in 1965, 1970, 1975, 1980, 1983, 1985, 1987, 1991, 1992, 1993, 1994, 1995, and 1996, and consist of national representative surveys of Dutch adults age 17 and over. The CCN surveys contain information on values related to politics, social policy, work, and family, and enable us to construct a rich and highly comparable sample, since no changes in survey design or wording of questions were made during the period 1965-1996. The number of respondents ranges from 1,517 to 2,418 per year. Our aggregate sample consists of 24,016 respondents with valid data on all variables.

#### *4.3.2 Measures*

Our main variable of interest is the acceptance of voluntary childlessness. It is measured by the item: 'A married couple decides to not have children, while there are no medical restrictions. Do you approve or disapprove?' with answer categories (1) 'approve', (2) 'it depends (on circumstances)', and (3) 'do not approve'. Table 4.1 shows that unconditioned approval of childlessness has increased by more than 67 per cent in the period 1965-1996. In 1965, 23 per cent tolerated childlessness without further consideration of the circumstances; in 1996 this figure had risen to 90 per cent. As Figure 4.1 showed, most of the change in acceptance of voluntary childlessness has occurred between 1965 and 1980, in the beginning of our observation window. A closer examination of the data shows that respondents became more pronounced in their approval of

couples who decide to forgo parenthood. People in the 1980s and 1990s either approved or disapproved of childlessness, because on average the portion of respondents in the 'it depends' category is larger at the beginning and smaller at the end of the time span of our trend analysis. In 1996, it seems that nowadays a vast majority in the Netherlands approves voluntary childlessness.

For the analysis of intra-cohort change, we construct thirteen time periods indicating the year of survey. In addition, eight cohort groups are defined to measure cohort replacement effects: respondents born (1) before 1910, (2) 1910-1919, (3) 1920-1929, (4) 1930-1939, (5) 1940-1949, (6) 1950-1959, (7) 1960-1969, and (8) 1970 or later.

### *Individual characteristics*

In our analysis to answer the research question about the social categories who are (still) not accepting voluntary childlessness, we focus on the last six years of the time span in the data: 1991-1996. Appendix A gives an overview of the distributions of the individual level explanatory variables. *Gender* is a dichotomous variable with one indicating women. *Partner status* is a dichotomous variable indicating whether or not the respondent is in a long-term relationship (i.e. cohabitating or married). The *household composition* variable refers to respondent's current household composition, i.e. the number of children living with the respondent at the time of the survey. This makes it difficult to compare people with and without children, because respondents not living with a child at the time of the survey can either be childless or in the empty nest stage. Therefore, we subdivide respondents not living with at least one child in two age groups. Respondents older than 40 are assumed to have children and to be in the empty nest stage, whereas younger individuals (age 40 at most) are thought to have not entered parenthood yet. Unfortunately, both age groups will include respondents who never had or will have children, but our data has no indicator for this. This means that household composition is measured in four categories, namely (1) 'no children, respondent is forty at most', (2) 'no children; respondent is older than forty', (3) 'one or two child(ren)' and (4) 'three or more children'. *Educational level* is divided into four categories; (1) primary education and lower vocational education, (2) lower secondary education, (3) higher



secondary education and middle vocational education and (4) university or higher vocational education. *Income* is measured as the logged annual gross household income in Dutch guilders and is corrected for inflation rates.

Finally, *urbanization* is coded as an indicator with one referring to a resident of one of the three largest cities in the Netherlands, namely Amsterdam, Rotterdam, or The Hague. *Religious socialization* is measured by asking respondents whether they were raised and socialized with a specific religious belief. *Religious denomination* is assessed with the question: 'Do you consider yourself as belonging to a religious denomination?' Both religious socialization and denomination are coded in five categories: (1) none, (2) Roman Catholic, (3) Dutch Reformed, (4) Re-reformed and (5) Other<sup>3</sup>. *Church attendance* is measured by the question 'How often do you usually (e.g. last six months) attend church?' Respondents are divided in two categories, namely those attending church once a month or more often, and those who visit church never or less than once a month.

*Table 4.1 Acceptance of voluntary childlessness by survey year, 1965-1996*

<i>Acceptance of voluntary childlessness (%)</i>	1965	1970	1975	1980	1983	1985	1987	1991	1992	1993	1994	1995	1996
Disapprove	67.2	28.6	14.5	8.5	6.5	6.9	6.1	5.7	3.1	4.5	5.0	4.2	3.9
It depends	10.1	11.2	15.1	13.0	8.8	8.2	7.8	6.8	12.5	5.7	6.0	4.9	6.3
Approve	22.7	60.2	70.4	78.6	84.7	84.8	86.1	87.5	84.5	89.8	89.0	90.9	89.8
N	1,476	1,843	1,832	1,763	1,824	1,861	1,845	1,762	1,769	1,819	1,921	2,036	2,265

*Source: Cultural Change in the Netherlands*

### 4.3.3 Method

To answer our first research question, which focuses on the major sources of change in public support for voluntary childlessness, we assess intra-cohort and cohort replacement effects using the repeated cross-sectional CCN data<sup>4</sup> in two steps. First, we estimate net intra-cohort and cohort replacement effects by including survey year and cohort groups in a multinomial logistic regression analysis:  $y = b_0 + b_1 \text{ year} + b_2 \text{ cohort} + e$ . This step will also show whether intra-cohort change is linear and additive, a prerequisite for our second step, in which we use the slopes of the aforementioned equation to calculate the relative importance of both sources of social change (Firebaugh, 1997). In this linear decomposition, the contribution of intra-cohort change is measured by the formula  $b_1 (YR_t - YR_1)$ . The term between brackets represents the number of years between the first and the final wave of the survey, i.e. 1996-1965= 31 in our data. The coefficient  $b_1$  refers to intra-cohort change per year. Thus, by multiplying  $b_1$  with the total number of survey years in our sample, the total or relative contribution of intra-cohort change can be obtained. For estimating cohort replacement, we use the formula  $b_2 (C_t - C_1)$ , with  $b_2$  indicating the change in acceptance of voluntary childlessness per birth year.  $(C_t - C_1)$  refers to the difference in the average of birth years in the 1965 survey and the average of birth years in the 1996 survey. To answer our second research question about which respondents nowadays are intolerant of voluntary childlessness in a tolerant society, individual level variables are included in a multinomial logistic regression model for the survey years 1991-1996.

## 4.4 Results

### 4.4.1 Main sources of social change

Table 4.2 presents the results of our base line multinomial logistic regression model. Model 1 includes only the survey years as a predictor variable, and in Model 2 birth cohort is added. Model 1 repeats the results which were already visible in Figure 4.1 and Table 4.1: There has been a strong increase in the acceptance of voluntary childlessness. Model 2 is more interestingly: The results show that there are strong period and cohort effects with regard to the acceptance of voluntary childlessness, and that the differences between the

survey years are only partially explained by the inclusion of birth cohort in the regression equation. We observe that the rise in acceptance of childlessness is most prominent between 1965 and 1975. The level of acceptance has increased after 1975 as well but with a far lower momentum than before. In addition, Table 4.2 reveals that younger birth cohorts have stronger acceptance than older cohorts.

Our base line regression models makes clear that there are both intra-cohort and cohort replacement effects at work. But which one is more dominant in explaining the cultural shift towards more acceptance of voluntary childlessness? In order to find out the relative contribution of intra-cohort and cohort replacement effects, we use the linear decomposition method proposed by Firebaugh (1997). First, we have to determine whether the linear-additive assumption underlying this method is appropriate for our set of intra-cohort and cohort replacement variables. Based on the multinomial logistic regression results shown in Table 4.2, it can be concluded that there is no clear linear relationship between acceptance levels of voluntary childlessness and survey year over the whole period 1965-1995, but that there are two sub-periods in which the relationship is linear. Between 1965 and 1980 there has been a sharp increase in acceptance levels, whereas the period between 1983 and 1996 there has been a more moderate increase.

Table 4.3 presents the results of the linear decomposition for the total period (1965-1996) and for the two sub-periods 1965-1980 and 1983-1995 separately. We focus on the difference between the 'acceptable' and the 'unacceptable' category, as here the shifts are most pronounced. The upper part of the table shows the multinomial logistic regression results on which the calculations in the lower part of the table are based. These calculations yield striking results. Almost 90 per cent of the change in acceptance of voluntary childlessness between 1965 and 1980 stems from intra-cohort change, whereas cohort replacement seems to be of less importance. The second time period, starting from 1983 and ending in 1996, shows a reversed pattern with cohort replacement effects overshadowing intra-cohort change (64 per cent versus 36 per cent). Here, shifts in fertility norms are mainly due to the replacement of older, more conservative cohort groups with younger, more tolerant ones.

Table 4.2 Multinomial logistic regression analysis on acceptance of voluntary childlessness: Net intra-cohort and cohort replacement effects, 1965-1996

	Model 1		Model 2	
	Unacceptable	It depends	Unacceptable	It depends
	vs Acceptable	vs Acceptable	vs Acceptable	vs Acceptable
<i>Survey year (ref:1965)</i>				
1970	-1.830***	-.868***	-1.696***	-.767***
1975	-2.668***	-.728***	-2.478***	-.582***
1980	-3.315***	-.990***	-2.970***	-.740***
1983	-3.649***	-1.457***	-3.233***	-1.164***
1985	-3.590***	-1.524***	-3.098***	-1.184***
1987	-3.728***	-1.590***	-3.188***	-1.230***
1991	-3.811***	-1.752***	-3.192***	-1.358***
1992	-4.406***	-1.101***	-3.754***	-.690***
1993	-4.090***	-1.944***	-3.418***	-1.524***
1994	-3.955***	-1.889***	-3.271***	-1.467***
1995	-4.155***	-2.118***	-3.455***	-1.688***
1996	-4.214***	-1.844***	-3.522***	-1.421***
<i>Cohort (ref: &lt; 1910)</i>				
1910-1919			-.288***	-.204
1920-1929			-.562***	-.298**
1930-1939			-.729***	-.475***
1940-1949			-1.310***	-1.009***
1950-1959			-1.692***	-1.178***
1960-1969			-1.778***	-1.117***
>= 1970			-1.677***	-.858***
Chi <sup>2</sup> (df)	4,393(24)		5,063 (38)	
N	24,016		24,016	

\* $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

Source: Cultural Change in The Netherlands

#### *4.4.2 Determinants of intolerance*

So far, we focused on the enormous increase in tolerance towards voluntary childlessness and the main causes of this growth. At this point, the question rises which members of society are intolerant, since our results suggest that permissiveness regarding childlessness has dominated Dutch society since the 1990s. Approximately 90 per cent of the Dutch population unconditionally approves a couple's decision to forgo parenthood. Table 4.4 gives the multinomial logistic regression results for the period 1991-1996. We focus on the coefficients in the left column, where the two most extreme answer categories are compared. First, we see that in the 1990s birth cohort still is of considerable importance after controlling for other individual level characteristics. People who were born before 1940 show lower levels of acceptance than those who were born before that moment in time.

When looking at the socio-demographic variables, we see that women do not seem to be more tolerant towards couple's fertility decisions than men are. In addition, having a partner or not does not affect one's view on voluntary childlessness, but having children does. Living with three or more children leads to higher levels of disapproval in comparison to respondents living with no, one, or two children. In addition, the higher educated show lower levels of disapproving childlessness than the lower educated. People with a higher income are more tolerant towards voluntary childlessness as well. Finally, living in one of the three largest cities in the Netherlands (Amsterdam, Rotterdam or The Hague) has no significant effect on the chance of approving childlessness.

When we turn our focus to religion, we see that religious socialization increases one's negative attitudes toward childlessness only for respondents who were brought up with the religious ideas of other denominations than the three large ones in the Netherlands. Contrary to what we expected, people socialized in a Roman Catholic, Dutch Reformed, or Re-reformed environment do not have higher chances of rejecting childlessness compared to those who are not religiously socialized. Of course, these zero effects are only present in a model that controls for current religiosity and for current church attendance, but it is remarkable that religious socialization does not have an additional impact on norms that are so directly related to religious doctrines.

Table 4.3 Components of change in the acceptance of voluntary childlessness, 1965-1996

	1965-1996		1965-1980		1983-1996	
	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
	Unacceptable	Unacceptable	Unacceptable	Unacceptable	Unacceptable	Unacceptable
	vs	vs	vs	vs	vs	vs
	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable
Survey year	-.129***	-.104***	-.227**	-.208***	-.038**	-.018**
		(b <sub>1</sub> )		(b <sub>1</sub> )		(b <sub>1</sub> )
Year of birth		-.003***		-.028***		-.036***
		(b <sub>2</sub> )		(b <sub>2</sub> )		(b <sub>2</sub> )
Chi <sup>2</sup> (df)	3784 (2)	4345 (4)	1542 (2)	1760 (4)	41 (2)	428 (4)
N	24,016	24,016	6,935	6,914	17,642	17,102
	Total change	Intra-cohort <sup>a</sup>	Intra-cohort (%)	Cohort replacement <sup>b</sup>	Cohort replacement (%)	
1965-1996	-4.075	-3.224	79.1	-.085	20.9	
1965-1980	-3.537	-3.120	88.3	-.417	11.7	
1983-1996	-.624	-.234	36.3	-.390	63.7	

\* $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\* $p < 0.01$

Source: Cultural Change in The Netherlands

<sup>a</sup> Intra cohort change equation =  $b_1 (YR_t - YR_1)$  with  $YR_t - YR_1 = 31$  for 1965-1996,  $YR_t - YR_1 = 15$  for 1965-1980, and  $YR_t - YR_1 = 13$  for 1983-1996

<sup>b</sup> Cohort replacement equation =  $b_2 (C_t - C_1)$  with  $C_t - C_1 = 28.36$  for 1965-1996,  $C_t - C_1 = 14.91$  for 1965-1980, and  $C_t - C_1 = 10.84$  for 1983-1996

Table 4.4 Multinomial logistic regression analysis on acceptance of voluntary childlessness: Effects of individual characteristics, 1991-1996

	Model 12	
	Unacceptable vs Acceptable	It depends vs Acceptable
<i>Cohort (ref: 1910-1919)</i>		
1920-1929	-.348	.006
1930-1939	-.413	.045
1940-1949	-1.230***	-.359
1950-1959	-1.616***	-.682**
1960-1969	-1.169***	-.465
>= 1970	-.991**	-.173
<i>Gender (ref: men)</i>		
Women	-.299	-.090
<i>Partner status (ref: no partner)</i>		
Partner	.151	.017
<i>Household composition (ref: 1 or 2 child(ren))</i>		
No children > 40 years	-.037	-.065
No children <= 40 years	-.228	.006
3 or more children	.619***	.337**
<i>Educational level (ref: primary education)</i>		
Lower secondary/ vocational education	-.675***	-.384***
Higher secondary/vocational education	-1.069***	-.796***
University	-.994***	-1.289***
<i>Income</i>		
Logged annual gross household income	-.532***	-.553***
<i>Urbanization (ref: not living in three largest cities)</i>		
Living in three largest cities	-.228	.132
<i>Religious socialization (ref: none)</i>		
Roman Catholic	.094	-.269*
Dutch Reformed	-.122	-.022
Re-reformed	.601	.364*
Other	1.054***	.890**
<i>Religious denomination x church attendance (ref: none)</i>		
Roman Catholic x no regular church attendance	.281	.890***
Roman Catholic x regular church attendance	.830***	1.402***
Dutch Reformed x no regular church attendance	.421	.397*
Dutch Reformed x regular church attendance	1.079***	1.082***
Re-reformed x no regular church attendance	-.548	.675**
Re-reformed x regular church attendance	1.783***	1.219***
Other x no regular church attendance	.789	.475
Other x regular church attendance	1.476***	.960***
Chi <sup>2</sup> (df)	1,071 (58)	
N	10,782	

\* $p < 0.10$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$

Source: Cultural Change in The Netherlands



When we turn to current religiosity we observe that persons who say they have a religious denomination but *who do not attend church services regularly* are not less tolerant when it comes to fertility values than non-religious people<sup>5</sup>. This holds for Roman Catholics, Dutch Reformed, Re-reformed, as well as individuals belonging to other denominations. However, when people who belong to a religious denomination visit church at least once a month, they exhibit significant lower acceptance levels of voluntary childlessness. This pattern is particularly strong for the Re-reformed, as might be expected, and less pronounced for Roman Catholics.

In sum, religiosity is clearly related to one's view regarding voluntary childlessness. It appears that church attendance makes the difference: Those attending religious services regularly report lower levels of acceptance compared to those not visiting church on a regular basis. When examining acceptance levels between 1991-1996, we find that more than half of those disapproving childlessness visits church often. Table 4.5 also reveals that educational level is related to one's view regarding childlessness since the lower educated are more likely to disapprove childlessness than the higher educated.

Table 4.5 Acceptance levels (%) by church attendance and educational attainment, CCN 1991-1996)

		Do not approve	It depends	Accept	Total
No regular church attendance	Lower educated	34.9 (174)	44.5 (342)	47.4 (4758)	46.7 (5274)
	Higher educated	7.8 (39)	10.0 (77)	32.0 (3216)	29.5 (3332)
Regular church attendance	Lower educated	46.4 (231)	35.5 (273)	13.8 (1381)	16.7 (1885)
	Higher educated	10.8 (54)	9.9 (76)	6.8 (684)	7.2 (814)
Total		100 (498)	100 (768)	100 (10.0039)	100 (11.305)

Source: *Cultural Changes in the Netherlands (CCN), 1991-1996*

#### 4.5 Conclusion

First, the Cultural Change in the Netherlands data reveals an enormous increase in tolerance towards childlessness. In 1965, less than one in four respondents accepted childlessness without further consideration of the circumstances, while this percentage approaches 90 per cent in 1996. Furthermore, to explain growing acceptance of childlessness, we focused on intra-cohort and cohort replacement effects. The analyses yield several interesting results.

With respect to the results of the linear decomposition, it can be concluded that changes within cohorts are mainly responsible for the shift in the acceptance of childlessness between 1965 and 1980. The change in public opinion regarding childlessness in this period is not so much caused by replacement or succession of different groups within society. Instead, members within existing groups (cohorts) changed their fertility norms due to specific factors of a contextual nature that affected all members of society (i.e. period effects), and this caused a decrease in the rejection of childlessness at the national level. For clarifying the change in acceptance of childlessness between 1983 and 1996 a different explanation applies. Here, the increase in acceptance is mainly due to replacement of older, more conservative cohorts by younger, more tolerant cohorts, referring to the changing composition of society.

We conclude that the dramatic change in the acceptance of voluntary childlessness is part of the major changes that took place in the Netherlands in the sixties and seventies, before levelling off during the eighties and nineties. These economic and demographic macro mechanisms work in two ways: first, by influencing norms on voluntary childlessness during socialization (cohort replacement effect) and by influencing these norms later in life (intra-cohort change).

Because of high acceptance levels at the end of our survey period (1991-1996), the question rises who remains intolerant in a tolerant society. As expected, respondents with three or more children and those with lower socio-economic positions (lower education and income levels) show higher chances of disapproving voluntary childlessness. Gender, partner status, and urbanization do not affect people's fertility norms. Furthermore, we find that religion is an important predictor of permissiveness, although its effects are less pronounced than we anticipated. For example, we observe hardly any influence of being brought up within a religious context. In addition, members of a religious denomination do not per se exhibit lower chances of accepting voluntary childlessness than non-religious people. It is church attendance that seems to be the key factor when it comes to explaining fertility norms. Members of a religious denomination who attend church services once a month or more have higher levels of disavouring voluntary childlessness, and members who do not visit

church regularly on average have the same norms as the non-religious. The significance of church attendance cannot be overstated. By visiting church, religious people are exposed to the pro-family messages of religious denominations more extensively and more frequently. This pattern is most pronounced for the Re-reformed, for who we anticipated strong pronatalist views in the first place.

Although this study has shed more light on the causes of changing fertility values, this article also leads to suggestions for future research. First, the CCN survey does not provide any information on the acceptance of childlessness from 1996 onwards. It is not very likely that the percentage of the Dutch population who accept voluntary childlessness will further increase, given the high level at the end of our time span. However, it would be interesting to assess whether a counter trend towards more conservative fertility norms emerged. Our finding that the youngest two cohorts (born in 1960 or later) are less tolerant towards voluntary childlessness than the cohorts born earlier points in this direction. In addition, a counter trend has been found in the Netherlands for other values, such as sexual permissiveness (Kraaykamp, 2002).

Second, the results in this study should be interpreted with caution because of social desirability. Although it is quite unlikely that the observed radical change in acceptance of voluntary childlessness in the Netherlands can be accounted for by changing perceptions about social desirability – norms about desirability only change unless values are also changing (Firebaugh 1992) – our results might be biased due to the fact that respondents have the tendency to give answers that are compatible with norms in society. Our sample may thus have reported to be more tolerant in fertility values than they actually are. The question rises whether respondents will still be as tolerant towards childlessness if it takes place in their own environment, for instance when close family members decide to have no children. Will parents disapprove their children's decision to forgo parenthood? This is why future research should focus more on the impact of social networks on individual's childbearing dispositions and on actual fertility.

*Notes*

1 Moors (2003) has shown that fertility behaviour and fertility values are strongly correlated on the individual level as well.

2 To calculate GNP per capita, we first divided national income by population size. In addition, we also corrected for changes in purchasing power using the Consumer Price Index.

3 Although the surveys give no further information on other denominations, national statistics show that these predominantly consist of other Christians such as Pentecostals and Jehovah's witnesses, and – to a lesser extent – Muslims (Barrett, Kurian & Johnson, 2001).

4 Firebaugh (1992) argues that the analysis of repeated cross-sectional data can only serve as a tool to identify intra-cohort change and cohort replacement effects, if change within birth cohorts is not due to a changing composition of the population as caused by mortality and migration. Migration can be assumed to be of little consequence since Dutch immigration as well as emigration levels are less than one percent of the total population in the period 1900-1996 (Statistics Netherlands at [www.cbs.nl/statline](http://www.cbs.nl/statline)). Mortality is correlated with educational attainment and gender. Since the (probably) more tolerant groups (the high educated and women) survive the less tolerant groups the negative effect of cohorts may be overestimated, which means that the proportion of the total change that is attributed to intra-cohort change is overestimated to an unknown extent.

5 Roman Catholics, Dutch Reformed, Re-reformed, and those belonging to other religious denominations are more likely than non-religious people to answer “it depends (on circumstances)” rather than “acceptable” when it asked about voluntary childlessness. Apparently, the first group has more reservations when it comes to approving of a couple's decision to forgo parenthood. This pattern is strengthened by attending church regularly. However, since our focus is on the intolerant in a tolerant society, we do not discuss these results in detail.

*Appendix A Descriptive statistics, 1991-1996 (n=10,782)*

	Mean	s.d.
<i>Cohort (1/0)</i>		
1910-1919	0.01	
1920-1929	0.10	
1930-1939	0.13	
1940-1949	0.17	
1950-1959	0.25	
1960-1969	0.21	
>= 1970	0.13	
<i>Gender(1/0)</i>		
Women	0.55	
<i>Partner status (1/0)</i>		
Respondent has partner	0.67	
<i>Household composition (1/0)</i>		
1 or 2 child(ren)	0.41	
No children > 40 years	0.30	
No children <= 40 years	0.19	
3 or more children	0.10	
<i>Educational level(1/0)</i>		
Primary education	0.32	
Lower secondary/ vocational education	0.32	
Higher secondary/vocational education	0.23	
University	0.13	
<i>Income (in Dutch guilders)</i>		
Annual gross household income	66,476	35,380
<i>Urbanization (1/0)</i>		
Living in three largest cities	0.13	
<i>Religious socialization (1/0)</i>		
None	0.29	
Roman Catholic	0.39	
Dutch Reformed	0.19	
Re-reformed	0.10	
Other	0.03	
<i>Religious denomination (1/0)</i>		
None	0.61	
Roman Catholic	0.21	
Dutch Reformed	0.10	
Re-reformed	0.07	
Other	0.02	
<i>Church attendance (1/0)</i>		
On a regular basis	0.24	



## **CHAPTER 5**

### ***CROSS-NATIONAL DIFFERENCES IN NORMS AGAINST CHILDLESSNESS: MODERNIZATION, INSTITUTIONS AND COMPOSITIONAL FACTORS<sup>4</sup>***

Little is known about why norms against childlessness vary across Europe. This study uses multilevel models for 46 European countries to test hypotheses at both the individual- and context level. Using data from the European Values Study 2008, our analyses show that Europeans do not share common norms regarding childlessness: In Sweden and the Netherlands norms against childlessness are much weaker than in Georgia and Bulgaria, with the other countries in between. At the individual level, those with stricter norms against childlessness are the lower educated, older respondents and Muslims. At the contextual level, GDP per capita, postmaterialism and gender equality weaken norms against childlessness. Although both social institutions and modernization factors explain European differences in norms against childlessness, economic modernization is by far the most important predictor.

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<sup>4</sup> *This chapter was co-authored by Prof. Dr. Paul de Graaf. An earlier version of this chapter was presented at the European Population Conference, September 2010, Vienna, Austria. A slightly different version has been submitted for publication in an international journal.*

## **5.1 Introduction**

In this study we examine to what extent norms against childlessness differ between European countries. During the last decades, substantial changes in fertility behavior have been reported across Europe. Most countries experienced a decrease in the Total Fertility Rate (TFR) to below replacement level (below 2 children per woman) or even 'lowest-low' levels of around 1.3 children per woman (Castles, 2003; Frejka & Sobotka, 2008; Sobotka, 2004).

Previous research argued that cultural explanations are important in explaining these fertility trends. It is often assumed that parenthood is a central element in people's lives. There are, however, several reasons to expect that having children is more and more perceived as a matter of individual preference nowadays. Due to major changes in different respects, the meaning, function and position of children in people's life has changed because of three reasons (Fokkema & Esveltdt, 2008). First, the economic utility and value of children has decreased sharply, especially in industrialized countries with welfare state regimes (Morgan & Berkowitz King, 2001). Children have become less important for securing the financial position of parents in later life (Fokkema & Esveltdt, 2008). Second, opportunity costs related to parenthood has risen. Because of rising educational levels labor market participation of women has become more common. In many European countries, however, household work and care for children remain primarily a women's task. Third, downward fertility trends occurred in parallel with a value shift towards more individualization and personal choice regarding partnership behavior and parenthood (Fokkema & Esveltdt, 2008; Sobotka & Testa, 2008). Not surprisingly, comparative studies report an increase in variety of living arrangements across European countries since the last two decades (Fokkema & Liefbroer, 2008).

This study contributes to our knowledge of cross-national differences in fertility norms. We start with answering our first research question: *To what extent do Europeans have different norms against childlessness?* We analyze data from the European Values Study (EVS, wave 2008) on almost 60 thousand men and women from 46 European countries. All substantial European countries are included in this data set, which especially improves our understanding of norms in the whole of Europe since in most comparative datasets only a small number of Central and Eastern European countries are included. Analyzing countries from different parts in



Europe is relevant because substantial changes in family-formation patterns in West-Europe emerged in the 1960s, whereas similar changes in Central and Eastern European countries occurred only recently since the 1990s (Frejka et al., 2008; Sobotka & Testa, 2008).

Only a small number of studies examined cross-national differences in fertility norms (Fokkema & Esveldt, 2008; Gubernskaya, 2010; Sobotka & Testa, 2008). Contextual-level explanations for differences across Europe are even scarcer. Inglehart's modernization theory is often used for explaining value differences between countries. Other researchers, however, argue that modernization theory pays too little attention to a country's idiosyncratic background, which is rooted in the social institutions in a country (Fjellvang, 2010; Gundelach, 1994; Haller, 2002). In this study, we therefore elaborate upon the importance of both modernization and social institutions in determining norms against childlessness. This is why our second research question is: *To what extent can differences among Europe be explained by compositional factors, modernization and social institutions?* Our study will theoretically and empirically focus on modernization theory and social institutions while taking between-country differences in the distributions of individual level characteristics (compositional effects) into account.

## **5.2 Theoretical background**

### *5.2.1 Individual-level characteristics and compositional factors*

If individual characteristics influence norms against childlessness, unequal distribution of these individual characteristics across countries partly explain differences between countries (Snijders & Bosker, 1999). In other words, if one wants to study the effects of national context one has to control for compositional factors. To start with, women are expected to hold more tolerant views regarding childlessness, because economic costs in terms of lost wages and career opportunities are higher for women than men (Koropeckyj-Cox & Pendell, 2007). With respect to age, older people are expected to have more negative views towards childlessness. Younger people are raised in a more prosperous environment, and are therefore likely to hold more liberal and tolerant values (Inglehart, 1977; Rodgers, 1982; Ryder, 1965). We note that gender and age cannot contribute much to compositional explanations

because the distributions of these variables will not be very different between countries.

Socio-economic factors probably are more relevant for compositional explanations. The higher educated and those in higher occupational classes are expected to have less traditional values and norms. It has been argued that the educational system teaches both knowledge and skills but also egalitarian and tolerant views (Kalmijn & Kraaykamp, 2007). Furthermore, people who participate on the labor market are more confronted with career possibilities and accompanying difficulties than the unemployed, which is why respondents with a paid job will be more aware of costs related to parenthood. Therefore, we expect that all occupational classes will hold more tolerant norms regarding voluntary childlessness than the unemployed and housewives.

Several studies refer to the importance of marital status when studying family values. Marriage tends to make people more traditional, while people hold more liberal views after experiencing a divorce (Gelissen, 2003; Kalmijn, 2003). Earlier studies found that parental status is another predictor of one's fertility values. Whether people enjoyed experiences in the past (in this case the entry into parenthood) or not, they develop attitudes favoring the decisions they made earlier in time in order to rationalize own choices. We expect that parents and young people without children hold stronger norms against childlessness than childless people aged 45 and over. In addition, we expect that the more children one has the stricter one's norm towards childlessness will be. Since there is considerable variation in family status between countries, these variables may contribute to composition explanation of between-country variation.

Next, all religious faiths spread pro-family messages which stress the centrality of the family with children. The Protestant faith, however, stresses own responsibility instead of prescribing strict rules (de Loor, 1981). This is why we assume that religiously affiliated will all hold stricter norms regarding childlessness than those not belonging to a religious faith. We expect that among the religiously affiliated, Protestants will hold the weakest norms against childlessness. In addition, we expect that the more often one attends religious services, the stricter norms against childlessness will be. Finally, we expect that a higher level of postmaterialism will be associated with weaker norms regarding voluntary childlessness, because a higher

score on Inglehart's materialism-postmaterialism scale indicates that one is less concerned with materialist concerns while preferring autonomy and individual choice (Inglehart, 1997).

Earlier research mentions causality and selection issues when studying individual characteristics and norms (Kalmijn, 2003; Lesthaeghe & Moors, 2002; Moors, 1996). This is why it is claimed that panel data are required to distinguish the value adjustment effect from the selection effect (Kalmijn, 2003; Moors, 1996). We think that these arguments are less valid for our analysis of cross-sectional comparative research. For example, the effect of church attendance at the macro level on individual norms will be more causal in nature, when we control for the association between norms and church attendance at the individual level (Kalmijn, 2003). The individual effect covers both adjustment and selection, whereas the macro-level effect reflects adjustment of one's norms to behavior expressed by people in one's social environment.

### *5.2.2 Contextual-level characteristics*

#### *Economic and cultural modernization*

There are two reasons why it can be expected that economic development is associated with norms against childlessness. In less affluent countries children are often regarded as the main providers of care and assistance when parents grow older (Fokkema & Esveltdt, 2008; Morgan & Berkowitz King, 2001). When people are confronted with economic difficulties, especially in countries with low levels of government support, childlessness will be less favorable. Furthermore, studies on norms and values often use Inglehart's modernization theory to explain differences between countries. Modernization theory claims that economic development, and industrialization in particular, lead to pervasive cultural changes (Inglehart & Baker, 2000). Industrialization is considered to be a key element of a modernization process, because industrialization is responsible for persistent social and cultural changes, such as rising income and educational levels (Inglehart & Baker, 2000). Hence, economic modernization will cause a shift from traditional toward more modern values.

Inglehart and Baker (2000) find evidence for their assumption that the value climate in affluent countries differs from those in low income countries. Their

analyses show that in high income countries self-expression values are more prevalent than survival values. A reversed pattern, however, is found for the lowest income countries in their sample. In these countries survival and traditional values are more widespread. Based on these arguments, we predict the following: *The higher the level of economic development in a country, the weaker norms against childlessness will be.*

Cultural modernization is a second aspect of Inglehart's modernization theory. Therefore, we also examine to what extent the religious context, the level of postmaterialism and the degree of gender equity are related to norms against childlessness. These aspects are not mutually exclusive but are often closely related and complement one another (Sobotka, 2011). Previous studies have shown that the devoutness of society as a whole influences individuals regardless of people's own level of religiosity (Kelley & de Graaf, 1997). People in devout countries are more exposed to the dominant religious culture in that country (Kelley & de Graaf, 1997; Ruiter & de Graaf, 2006). The more devout the national context and one's social network are, the more one will be exposed to stronger norms against childlessness.

Religious participation may be more appropriate for examining the importance of religious context than religious affiliation. Religious affiliation seems to be insufficient to estimate religiosity effects, because in many countries religious identity is an important part of the national identity, and then religious denomination does not primarily represent beliefs (McQuillan, 2004). Church attendance levels may be a better indicator of the strength of religion as an institution (Kalmijn, 2010). This brings us to the following hypothesis: *The higher the level of church attendance in a country, the stronger norms against childlessness will be.*

Another important aspect of cultural modernization is the level of postmaterialism in a country. Inglehart and Baker (2000) argue that in case of economic uncertainty, people tend to attach to traditional norms and values in order to increase predictability in the uncertain context they are living in. In high income countries survival is taken for granted, which makes cultural diversity less threatening and more accepted. In other words, once economic needs are secured, people shift towards less traditional values. As a result, people will value personal freedom which means that different life styles are possible. Therefore, we expect: *The*

*higher the level of postmaterialism in a country, the weaker norms against childlessness will be.*

Finally, we examine gender equality, which refers to society's allocation of opportunities to men and women (Mills & Begall, 2010). If men and women have equal career and income opportunities the traditional division of care and work tasks, in which taking care for the children and the household are women's main responsibilities, becomes less natural. Previous research has argued that it is very likely that the level of gender equity in a country is used as a starting point to which both men and women compare their own position and situation (Greenstein, 2009). Hence, in countries with higher levels of gender equity, traditional family norms will be weaker than in countries in which women's choices and career opportunities are limited. The hypothesis is as follows: *The higher the level of gender equality in a country, the weaker norms against childlessness will be.*

#### *Social institutions*

Many scholars argue that modernization theory is only part of the explanation of value differences between countries. Norms and values in countries experiencing the same level of economic development can be different and can change differently, because social institutions also shape the value climate of a country (Fjellvang, 2010; Gundelach, 1994; Haller, 2002; Inglehart & Baker, 2000; Kamano, 1999). The collapse of the socialist system in Central and Eastern Europe between 1989 and 1991 caused rapid changes in institutions and gave way to several social and economic changes (Sobotka, 2011). After the fall down of the communist system, market economy and multiparty political systems were established in most former communist countries (Sobotka, 2011). As a consequence, educational levels in these countries increased and a sexual and contraceptive revolution was enforced, which lead to the preference of a more tolerant value climate. Researchers argue, however, that the shift towards more tolerant and individual values occurred much earlier in time and is now more completed in Western and Northern European countries than in post-communist countries. Hence, in countries with a communist heritage norms against childlessness will be stronger compared to countries without a communist heritage.

It is widely claimed that the religious heritage of a country is very important as well (Inglehart (1990; 49). Although the direct influence of religion in personal life nowadays may be weaker than it was before, the leading idea is that people will be affected by the rules and debate that are shaped by religious institutions (Inglehart, 1990; Inglehart & Baker, 2000; Verbakel & Jaspers, 2010). In advanced Western societies educational and scientific institutions spread knowledge and information. It is likely, however, that in some European societies a country's religious denomination will still be highly influential, because information is spread through religious channels. We hypothesize: *In countries with a Catholic, Muslim or Orthodox heritage norms against childlessness will be stronger compared to countries with a Protestant heritage.*

### **5.3 Data and method**

#### *5.3.1 Data*

To test our hypotheses, we use data from the European Values Study, wave 2008. The European Values Study is a large-scale standardized cross-national dataset about how Europeans think about a broad range of areas in life, such as politics, family and marriage, religion, and social or moral issues (EVS, 2010). The EVS-2008 is based on strictly representative samples. In each country 1,500 respondents aged 18 and older have been questioned using face-to-face interviews. Data used in this article come from 46 out of 47 countries included in the study; Azerbaijan was left out because of data problems. In order to be selected into our sample respondents had to meet a number of selection criteria. First, we only included respondents aged 18-80. Second, respondents had to have valid scores on all dependent and independent variables. As a result, our sample consists of 55,476 Europeans from 46 countries. Our dependent variable had about 2.5 per cent missing values. All independent variables had below or around 2 per cent missing scores, except for the income variable. As in most research a substantial number of respondents did not answer the income question, and as a consequence 18 per cent of the respondents had missing values on income. To avoid missing too many cases, respondents with missing values on income were assigned income score 0. At the same time, we included a dummy variable indicating missing information on income in all our models.

### 5.3.2 Measures

#### *Dependent variable: Norms against childlessness*

To measure norms against childlessness respondents were asked whether they agree or disagree with the following statement on a 5-point scale (with 1=strongly agree and 5=strongly disagree): *It is a duty towards society to have children*. We reversed these answer categories so that a higher score reflects stronger norms against childlessness. In this article we use one statement to measure norms, and it is not clear whether the reliability of this item is adequate. Therefore, we have looked for evidence to ascertain the validity of our measure. First, we have compared the country averages of our measure with the country average for a comparable item obtained from the European Social Survey (ESS wave 2006). In ESS the item regarding acceptance of voluntary childlessness is phrased more directly: ‘How much do you approve or disapprove if a woman / man chooses never to have children?’ Response options range from 1 to 5. EVS-2008 and ESS-2006 have 23 countries in common, and the aggregate correlation between the two measures of norms against childlessness is significant and strong ( $r=0.86$ ).

Second, previous research often used more than one item to measure fertility norms. These studies showed that responses to our item are in line with other items measuring fertility norms. Sobotka and Testa (2008) included the statement: ‘You cannot be really happy without having children’ and found that answer patterns to both items are almost identical because respondents answered to these questions in a systematic way. Noordhuizen, de Graaf & Sieben (2011) found that the item stating that it is a duty towards society to have children is highly correlated with other items measuring fertility norms. The item was included in a pronatalism scale in which three additional items are included: ‘One’s life is not complete if one has not had children’, ‘I believe that in this world one can only feel totally at ease in one’s own family with children’, ‘If one never has children, one can never be really happy’. The item used in this article correlates strongly with the total scale ( $r=0.62$ ). Although, of course, we concur with the idea that scales are more reliable than single items, we conclude that the validity of our measure is strong enough to warrant a meaningful analysis. Table 5.1 shows that the overall average on norms against childlessness is 2.9 on the 5-point scale, which means that more people agree with the item than disagree.

Table 5.1: Descriptive information on dependent and independent variables (N=55,476)

	Minimum	Maximum	Mean	St.dev.
<i>Dependent variable</i>				
Norm against childlessness	1	5	2.88	1.27
<i>Contextual-level variables</i>				
Communist history	0	1	.53	
<i>Religious heritage</i>				
Roman Catholic	0	1	.36	
Protestant	0	1	.23	
Muslim	0	1	.11	
Orthodox	0	1	.29	
GDP per capita	2300.00	78559.00	23825.74	15298.35
Postmaterialism	1.59	2.65	2.14	.25
Church attendance	2.10	5.67	3.41	.84
Global Gender Gap	.59	.82	.70	.04
<i>Individual-level variables</i>				
Female	0	1	.56	
Age	18	80	46.23	16.70
Educational attainment	0	6	3.09	1.35
Monthly income	10.21	14728.16	1250.37	1298.14
<i>Occupational class</i>				
Service class	0	1	.29	
Routine non-manual class	0	1	.17	
Self-employed	0	1	.07	
Skilled manual class	0	1	.13	
Unskilled manual class	0	1	.18	
Housewives	0	1	.05	
Unemployed	0	1	.04	
Other non-employed	0	1	.07	
<i>Marital status</i>				
Married	0	1	.57	
Cohabiting	0	1	.08	
Widowed	0	1	.09	
Divorced / Separated	0	1	.09	
Never married / cohabited	0	1	.17	
<i>Parental status</i>				
No kids, age 44 at most	0	1	.22	
No kids, age 45 or older	0	1	.05	
1 child	0	1	.18	
2 children	0	1	.34	
At least 3 children	0	1	.21	
<i>Religious denomination</i>				
None	0	1	.24	
Roman Catholic	0	1	.28	
Protestant	0	1	.11	
Muslim	0	1	.10	
Orthodox	0	1	.24	
Other	0	1	.02	
Church attendance	1	7	3.42	1.93
Postmaterialism	1	4	2.15	.97

There is strong variation in the country means (Table 5.2). In some countries norms are weak (means are below 2 in Belgium, The Netherlands, Norway and Sweden), and in other countries the norms are strong (the highest scores for Bulgaria, Kosovo, Georgia and Turkey).



Table 5.2: Descriptive information on country-level variables

Country	N	Mean norm against childlessness	Post-communist	Religious heritage <sup>a</sup>	GDP per capita <sup>b</sup>	Mean church attendance	Mean Postmaterialism	Global Gender Gap <sup>c</sup>
Albania	1227	3.13	yes	Muslim	7716	2.79	1.96	0.66
Austria	1062	2.58	no	Catholic	38153	3.23	2.25	0.72
Armenia	1329	3.34	yes	Orthodox	5900	4.02	2.14	0.67
Belgium	1444	1.92	no	Catholic	34493	2.49	2.48	0.72
Bosnia Herzegovina	1284	2.89	yes	Muslim	8390	4.16	1.81	0.70
Bulgaria	1237	3.88	yes	Orthodox	12394	3.28	1.81	0.71
Belarus	1362	3.49	yes	Orthodox	12261	3.27	1.84	0.71
Croatia	1169	2.63	yes	Catholic	19085	3.91	2.21	0.70
Cyprus	905	3.56	no	Orthodox	21200	4.70	2.10	0.67
Czech Republic	1404	3.29	yes	Catholic	24712	2.21	2.17	0.68
Denmark	1336	2.14	no	Protestant	36604	2.78	2.51	0.75
Estonia	1386	2.92	yes	Protestant	20657	2.50	2.12	0.71
Finland	897	2.06	no	Protestant	35426	2.46	2.47	0.82
France	1377	2.17	no	Catholic	34045	2.24	2.21	0.73
Georgia	1395	3.68	yes	Orthodox	4280	4.07	1.91	0.67
Germany	1776	2.65	no	Protestant	35613	2.48	2.51	0.74
Great Britain	1250	2.15	no	Protestant	35445	2.47	2.63	0.74
Greece	1357	3.30	no	Orthodox	29361	4.38	2.34	0.67
Hungary	1419	2.95	yes	Catholic	19329	2.58	2.09	0.69
Iceland	622	2.03	no	Protestant	36770	2.70	2.49	0.80
Ireland	719	2.48	no	Catholic	44195	4.40	2.06	0.75
Italy	1141	2.56	no	Catholic	30756	4.29	2.47	0.68
Kosovo	1290	3.72	yes	Muslim	2300	4.66	2.00	0.69
Latvia	1270	2.92	yes	Protestant	17101	2.96	2.13	0.74
Lithuania	1282	2.96	yes	Catholic	18826	3.71	2.09	0.72
Luxembourg	1423	2.37	no	Catholic	78559	2.84	2.09	0.68
Macedonia	1187	3.60	yes	Orthodox	10167	3.84	2.15	0.69
Malta	1294	3.29	no	Catholic	23800	5.67	1.98	0.66
Moldava	1381	3.43	yes	Orthodox	2925	4.08	1.79	0.72
Montenegro	1222	2.79	yes	Orthodox	13958	2.95	1.99	0.70
Netherlands	1343	1.73	no	Protestant	40850	2.92	2.65	0.74

rTable 5.2 (continued)

Northern Cyprus	458	3.09	no	Muslim	13920	3.07	2.31	0.59
Northern Ireland	371	2.27	no	Protestant	35445	4.12	2.12	0.74
Norway	1061	1.75	no	Protestant	58141	2.59	2.44	0.82
Poland	1197	2.88	yes	Catholic	17625	5.05	2.03	0.70
Portugal	1324	3.21	no	Catholic	23073	3.97	1.93	0.71
Romania	1121	3.23	yes	Orthodox	14064	4.61	1.95	0.68
Russian Federation	1265	3.11	yes	Orthodox	16139	2.81	1.59	0.70
Serbia	1236	2.85	yes	Orthodox	11457	3.30	1.88	0.70
Slovak Republic	1212	2.96	yes	Catholic	22081	4.08	2.14	0.68
Slovenia	1146	2.75	yes	Catholic	27610	3.20	2.40	0.69
Spain	1253	2.69	no	Catholic	31955	2.82	2.15	0.73
Sweden	624	1.61	no	Protestant	37383	2.10	2.64	0.81
Switzerland	1089	2.44	no	Protestant	42534	2.73	2.31	0.74
Turkey	2026	3.70	no	Muslim	13920	3.99	2.00	0.59
Ukraine	1303	3.22	yes	Orthodox	7271	3.60	1.80	0.69

Source: European Values Study wave 2008 <sup>a</sup> Classification is also used by Inglehart (1990; p. 440) <sup>b</sup> Gross domestic product (GDP) per capita corrected for purchase power parity (2008) in thousands of U.S. dollars from the WorldBank. For Malta and Kosovo we used data of the CIA Worldfactbook of 2009. For Northern Ireland we used the GDP level of the United Kingdom and we assigned Turkey's GDP level to Northern Cyprus. <sup>c</sup> Global Gender Gap Index (2008) from the World Economic Forum (Hausmann, Tyson & Zahidi, 2008).

*Independent variables on the individual level*

For examining the influence of educational level, the International Standard Classification of Education (ISCED) is used. This variable is a scale ranging from (0) 'pre-primary education or none education' to (6) 'second stage of tertiary education'. The logged household income is converted into Euros where necessary, and is corrected for purchasing power parity. Next, based on the classification of Erikson and Goldthorpe (1993) we distinguished five occupational classes of employed persons: service class (EGP I+II), routine non-manual class (EGP IIIa + IIIb), self-employed (EGP IVa + IVb + IVc), skilled manual class (EGP V + VI) and the unskilled manual class (EGP VIIa + +VIIb). We also created three dummy variables for those without a paid job, namely housewives, unemployed and other non-employed. In our regression analysis the service class will be the reference category.

Next, five dummy variables are used to indicate marital status: married, cohabiting, widowed, divorced / separated and never married, the married being the reference category. In addition, we consider respondents' child status by including the number of children. We distinguish the childless from respondents with children. Subsequently, respondents without children are divided into two subgroups. We use two groups of childless respondents in our analyses, childless respondents with a maximum age of 44 and childless respondents aged 45 and over. The remaining child status dummy variables refer to respondents with one child, respondents with two children and respondents having three or more children respectively. The childless aged 45 and over are the reference category.

We distinguish six categories of religious denomination: no denomination, Roman Catholic, Protestant, Muslim, Orthodox and other (such as Jewish, Hindu, Buddhist). Church attendance is measured by the question: Apart from weddings, funerals, and christenings, about how often do you attend religious services these days? We constructed a continuous variable ranging from (1) never, practically never to (7) more than once a week.

Finally, (post)materialism is measured by the well-known and often used materialism-postmaterialism scale introduced by Inglehart (Inglehart, 1997; Inglehart & Baker, 2000). Respondents are asked: On this card some of the goals which different people would give top priority are listed. If you had to choose, which of the things on this card would you say is most important...and next most important?

*(A) maintaining order in the nation, (B) giving people more say in important government decisions, (C) fighting rising prices, (D) protecting freedom of speech.* According to Inglehart (1990), those who choose (A) and (C) are materialists, whereas those who choose statements (B) and (D) are considered post-materialists. Respondents choosing the two materialist goals are assigned score 1, while respondents selecting two post-materialist statements are assigned score 4. If the two choices are a mixture of a materialist and post-materialist goal, respondents are given score 2 when their first choice is a materialist statement and score 3 when their first choice is a post-materialist goal. Hence, the materialism-postmaterialism scale runs from 1 to 4.

#### *Independent variables on the country level*

##### *Economic and cultural modernization*

To measure national economic development we use real gross domestic product (GDP) per capita corrected for purchase power parity (2008), which we obtain from the World Bank. GDP per capita is measured in thousands of U.S. dollars. For Malta and Kosovo, however, no information was available. For these countries we used data of the CIA Worldfactbook of 2009. For Northern Ireland we used the GDP level of the United Kingdom and we assigned Turkey's GDP level to Northern Cyprus.

Religiosity on the country level was measured by average church attendance in the EVS-2008 data. As Table 5.2 shows, the lowest levels of religious participation are observed in Sweden, the Czech Republic and France, whereas Malta, Poland and Cyprus show the highest levels of church attendance. Another indicator regarding cultural modernization is the level of postmaterialism. Again, we use aggregated individual level scores for assessing a country's level of postmaterialism. People living in Russia and Moldova are most materialist (mean country scores below 1.8) whereas people from Great Britain, the Netherlands and Sweden are most postmaterialist (mean country scores above 2.6).

We use the Global Gender Gap Index (2008) an indicator of a country's level of gender equality. This indicator is extracted from the World Economic Forum (Hausmann et al., 2008). The Global Gender Gap Index is based on earlier indexes measuring gender equality, such as the Gender-Related Development Index (GDI) and the Gender Empowerment Measure (GEM). The Global Gender Gap Index measures

the gap between men and women in four categories: economic participation and opportunity, educational attainment, political empowerment, and health and survival. To obtain an overall Global Gender Gap Index score, all four sub-indexes are averaged and final values are between 1 (equality) and 0 (inequality). Gender equality is highest in Scandinavian countries (scores around or above 0.80) but lowest in Turkey and Northern Cyprus (below 0.6).

### *Social institutions*

As Table 5.2 shows, we distinguish countries with and without a communist background, as they were divided by the Iron Curtain in the period between World War II and 1990. Religious heritage is based on the cultural tradition classification coded by Huntington (1993), which we extended for countries that were not in his study. All countries in our sample are defined as Protestant, Catholic, Orthodox, or Muslim with the Catholic tradition as the reference category.

### *5.3.3 Method*

We will start the empirical section of this chapter with answering our first research question about differences between European countries by showing a map of Europe in which percentages (totally) agreeing that is a duty to have children are depicted. In order to explain European differences in norms against childlessness we use multilevel analyses, because we are interested in individual as well as contextual level effects. In our models, individual respondents are nested within countries. When analyzing nested data multilevel models are preferred over OLS regression models for a number of reasons. First of all, estimates from multilevel models are more appropriate and conservative, because multilevel models take the nested data structure into account by acknowledging that observations of people from the same country are not independent but correlated. Second, multilevel models enable us to decompose the variance in our dependent variable into two different levels, namely the country – and the individual level (Gelissen, 2003; Snijders & Bosker, 1999). We start our multilevel analyses with estimating a null model with random intercepts only for determining the variance in norms against childlessness among individuals as well as countries. Then, individual-level effects are analyzed in model 2. Next, contextual-level effects are added one by one in models 3 and 4. We start with

examining the influence of a country's history, for which we use social institutions as indicators. We continue with modeling the effects of economic and cultural modernization in order to find out if, and if so to what extent, modernization overrules the effect of a country's history. Model 5 is the final model in which all variables, at the individual as well as the contextual level, are analyzed simultaneously.

## **5.4 Results**

### *5.4.1 Descriptive results*

In Figure 5.1 a darker color refers to a stronger average norm against childlessness. There appear to be substantial differences in the extent to which Europeans agree that it is a duty towards society to have children. The highest percentages of citizens (totally) agreeing that having children is a duty towards society are found in Bulgaria (71.7 per cent) and Georgia (64.5 per cent). Weaker norms against childlessness are found in Great Britain, Iceland and Finland. The lowest percentages are found in Sweden and the Netherlands: Approximately 5 per cent of the populations of these countries agree with the statement that it is a duty towards society to have children.

### *5.4.2 Multi-level results*

The Intra Class Correlation (ICC) indicates what proportion of the total variance can be attributed to the country level. The ICC is calculated using the following formula:  $\rho_1 = \tau^2 / (\tau^2 + \sigma^2)$ , where  $\tau^2$  is the between-groups variance (country) and  $\sigma^2$  is the within-groups variance (individuals) (Snijders & Bosker, 1999). We found variance of 1.281 for individuals and 0.338 for countries. The ICC is 0.209 ( $0.338 / (0.338 + 1.281)$ ), which means that approximately 21 % of the variation in norms against childlessness is due to the country in which people live (see Model 1 in Table 5.3). In many other studies analyzing cross-national variation in values the ICC is between 5% and 20% (Ruiter & van Tubergen, 2009; Snijders & Bosker, 1999), which means that there is considerable variation in norms against childlessness.

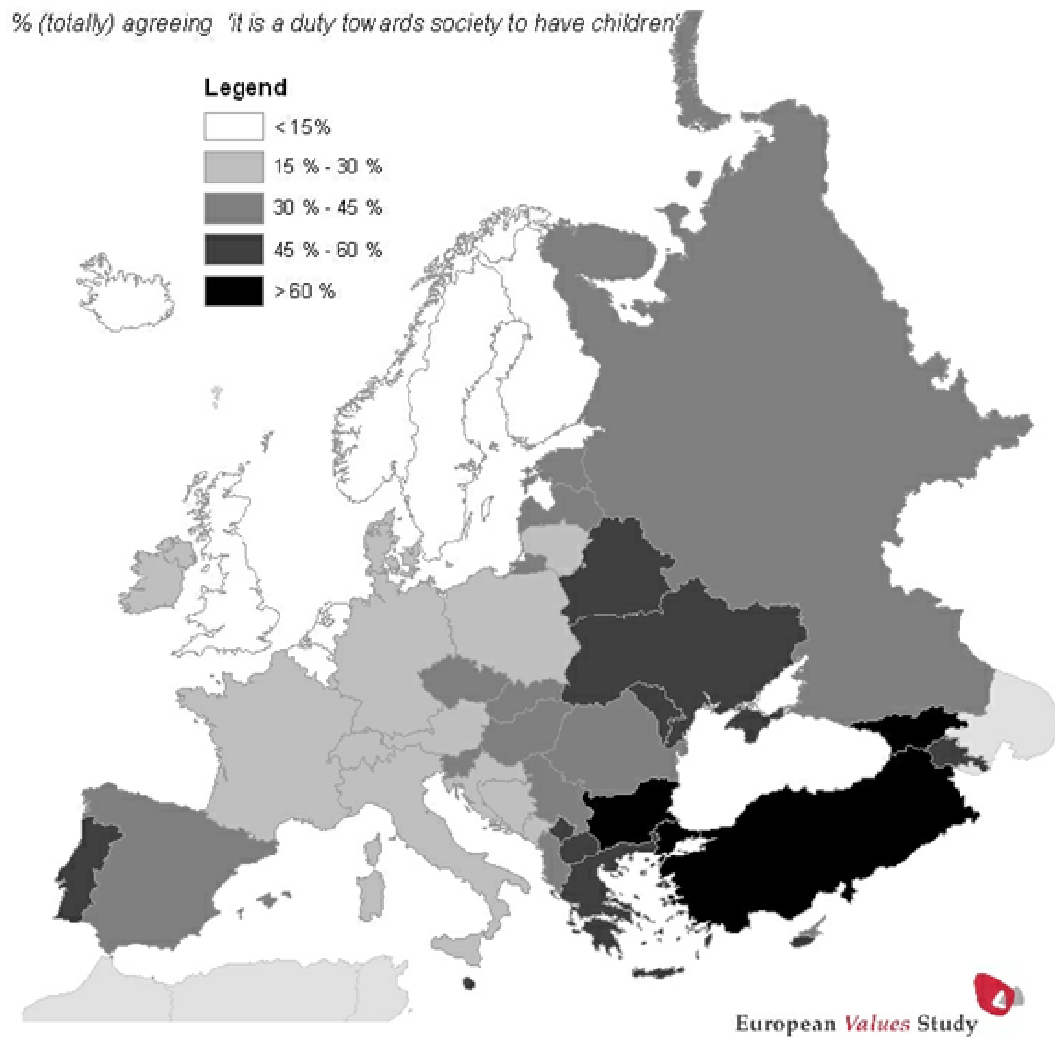


Figure 5.1: Percentage of the population that (totally) agrees with the statement: 'It is a duty towards society to have children' Source: European Values Study 2008.

### *Composition effects*

Model 2 shows the effects of individual characteristics which may lead to a compositional explanation of cross-country variation. Gender and age have the predicted effects. Women's norms against childlessness are significantly weaker than men's, and norms are stronger among older respondents. Empirical evidence is also found for the hypothesis that education is negatively related to norms against childlessness. In addition, those with a higher income and from higher occupational classes report weaker norms regarding childlessness. People from the service class and routine non-manual class have the weakest norms against childlessness. As expected, strongest norms against childlessness are reported by housewives. The

results of family life hypotheses are also in line with previous research findings: Those living in more modern living arrangements (cohabiting, divorced and separated) have significantly weaker norms compared to married respondents. With respect to child status, all respondents with children and the younger childless respondents reported stronger norms against childlessness than childless respondents over the age of 45.

We find partial support for our expectations regarding religiosity. Although not all differences between religious groups are significant, religiously affiliated have stronger norms against childlessness than the nonreligious, with the Protestants as exception. Protestants hold slightly weaker norms than the not religiously affiliated. Among the remaining religious denominations we find large differences. Clearly, Muslims ( $b=0.396$ ), Roman Catholics ( $b=0.130$ ) and the Orthodox ( $b=0.079$ ) have stronger norms than the non-religiously affiliated, which is in line with our hypothesis. In addition, those attending religious services more often hold stronger norms against childlessness compared to those who do not attend church regularly ( $0.060*6 = 0.36$  on the five-point scale). Finally, a higher level of postmaterialism is associated with weaker norms against childlessness ( $0.053*3 = 0.16$ ).

The individual-level variables in model 2 explain only 6.1 percent of the total variance on the individual level, but they explain 36.4 percent of the original variance on the country level, which confirms that controlling for compositional factors is necessary. It also shows that there is room for the effects of contextual country-level variables. Income and religious denomination are the most influential individual-level characteristics, and offer the most important contributions to the compositional explanation.



Table 5.3: Individual-level effects on norms against childlessness

	Model 1		Model 2	
	b	se	b	se
Women			-.140	*** .010
Age			.008	*** .000
Educational level			-.047	*** .005
Income			-.050	*** .007
Occupational class (ref: service class)				
Routine non-manual class			-.017	.015
Self-employed			.029	.021
Skilled manual class			.031	* .017
Unskilled manual class			.037	** .016
Housewives			.151	*** .027
Unemployed			.089	*** .027
Other non-employed			.064	*** .023
Marital status (ref: married)				
Cohabiting			-.089	*** .020
Widowed			.013	.019
Divorced / Separated			-.160	*** .017
Never married / cohabited			.006	.021
Parental status (ref: No kids. age 45 or older)				
No kids. age 44 at most			.223	*** .027
1 child			.241	*** .025
2 children			.272	*** .024
At least 3 children			.260	*** .024
Religious denomination (ref: no denomination)				
Roman Catholic			.130	*** .017
Protestant			-.043	** .022
Muslim			.396	*** .028
Orthodox			.079	*** .020
Other			.041	.033
Church attendance			.060	*** .003
Postmaterialism			-.053	*** .005
Intercept	2.835	*** .086	2.263	*** .081
N individuals	55,476		55,476	
N countries	46		46	
Variance at individual level	1.281	*** .008	1.203	*** .007
Variance at country level	.338	*** .072	.215	*** .044
% country variance explained cf Model 1			36.4%	

Source: European Values Study 2008

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.10$

*Social institutions*

Models 3, 4 and 5 offer the effects of the country-level effects. We start our comparative analyses with including the indicators of our institutional country characteristics, communist history and religious heritage. The finding that post-communist countries score 0.29 points higher on the five-point scale of norms than countries without a communist history is in line with researchers' claim that value change in post-communist countries only started recently. Model 3 further shows that the norms of people in countries with a Protestant heritage are weaker than people from a Catholic or Muslim countries. The strongest norms can be found in countries with an Orthodox heritage (0.45 points higher than in Catholic countries). By adding our proxies for communist history and religious heritage the explained variance at the country level increases from 36 to 74 per cent.

*Economic and Cultural modernization*

Model 4 adds economic modernization as a predictor variable to the regression equation. Our hypothesis that GDP per capita has a negative effect on norms against childlessness is supported. The effect size can be evaluated by computing the expected difference between people living in the country with the lowest and the highest GDP per capita. This 'maximum effect' is 0.84 points on the five-point scale for norms. It is very important to note that the introduction of GDP per capita to the model makes the effect of communist history small and statistically insignificant, but does not change the effects of religious heritage substantially. Only the effect of an Orthodox heritage decreases by about 25 per cent.

Model 5 then adds the three indicators of cultural modernization to the model. Average church attendance is not related to norms against childlessness, but postmaterialism and the global gender gap do affects norms in the expected ways. In countries where more people score high on the scale for postmaterialism and where there is more gender equality, norms against childlessness are weaker. The effect of postmaterialism is considerable: The difference between people living in the country with the lowest (Russian Federation) and the highest level of postmaterialism (the Netherlands) is about 0.61 point. The effect of the Global Gender Gap Index is quite

Table 5.4: Country-level effects on norms against childlessness (N=55,476 from 46 countries)

	Model 3		Model 4		Model 5	
	b	se	b	se	b	se
<i>Social institutions</i>						
Communist history	.286 ***	.103	.111	.127	.051	.124
<i>Religious heritage (ref: Catholic)</i>						
Protestant	-.240 **	.119	-.226 **	.113	.113	.134
Muslim	.239	.156	.031	.177	-.224	.170
Orthodox	.445 ***	.121	.315 **	.130	.202 *	.119
<i>Economic modernization</i>						
GDP per capita			-.011 **	.005	-.009 *	.005
<i>Cultural modernization</i>						
Average church attendance					-.006	.054
Average postmaterialism					-.577 **	.235
Global Gender Gap					-.038 ***	.012
Intercept	2.032 ***	.098	2.450 ***	.214	6.247 ***	1.111
Variance at individual level	1.203 ***	.007	1.203 ***	.007	1.203 ***	.007
Variance at country level	.089 ***	.019	.081 ***	.017	.060 ***	.013
% country variance explained cf Model 1	73.7%		76.0%		82.2%	

Note: All models include the individual level variables of Model 2 in Table 5.3.

Source: European Values Study 2008

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.10$

large as well: the difference between countries with the lowest score (Northern Cyprus and Turkey) and the highest score (Finland and Norway) is about 0.87.

The introduction of the indicators of cultural modernization makes the effects of religious heritage small. The effect of an Orthodox heritage, however, remains statistically significant. The effect of GPP per capita does not decrease much when cultural modernization is included in the model; apparently economic modernization has its own impact on norms against childlessness. We conclude this report of our results, by noting the quite high proportion of 82 per cent explained between-country variance in Model 5.

## 5.5 Conclusion

Cross-national differences in fertility norms have rarely been studied. This study examined to what extent compositional factors, social institutions and modernization

processes are associated with norms against childlessness. Using data from the latest wave of the European Values Study, collected in 2008 and 2009, we are able to draw the map of Europe with respect to norms against childlessness. The map shows big differences in norms against childlessness between European countries. In general, people from Northern and Western European countries hold weaker norms against childlessness compared to citizens of Central Eastern, and Southern European countries.

We have shown that there are clear differences between a country's demographic composition, its level of modernization, and its institutions on the one hand and its norms on the other hand. On the individual level, household income and religious denomination are the most important predictors. About one third of the observed cross-national variation is explained by these and other individual characteristics, and we conclude (a) that compositional explanations are important, and (b) that we need more than different distributions of individual variables to explain country differences. First, we investigated the impact of differences in the political and cultural histories of countries. These have important effects: in countries that had a communist government and countries with a Catholic heritage, and even more so in countries with a Muslim or Orthodox heritage, norms against childlessness are stronger than in Protestant countries. Second, we looked at the impact of economic and cultural modernization. Economic modernization, measured by the GDP per capita, and cultural modernization, measured by postmaterialism and gender equality, both have independent effects on norms against childlessness. In the final model, we find direct effects of an Orthodox heritage (although much smaller in the model without controls for modernization), of economic modernization, and of cultural modernization. The effects of a Communist history and the effects of a Catholic or Muslim heritage become insignificant. Apparently, the impact of these institutional factors is explained by modernization. More specifically, a communist history has hampered economic modernization and the growth of the national income, and thus has an indirect effect on norms. In the same way, the effects of a Catholic and a Muslim heritage, and partly the effect of an Orthodox heritage, are explained by cultural modernization.

We think that it will be very interesting to focus further research on change in fertility norms in former communist countries, and in countries with an Orthodox or

Muslim heritage. The collapse of communism has led to uncertainty in countries with a communist background. In some of these countries, the fall of the communist regime resulted in an economic collapse as well (especially in the former Soviet Union), whereas in other former communist countries (like Poland or the Czech Republic) the transition went rather smoothly (Sobotka, 2011). These differences in the societal transition are likely to affect current fertility values and behavior. Therefore, some researchers argue that the highest level of variety in norms and values is likely to be found among post-communist countries rather than in other parts of Europe (Sobotka, 2011). Further research on differences between post-communist countries, and on countries with an Orthodox or Muslim heritage, should also consider path dependency. Historical events and decisions may rule out certain options in the future. As a consequence, value change cannot be explained by one general narrative, instead sub-narratives should be taken into account (Lesthaeghe, 2011). Modernization is the motor of value change, but the speed of the modernization process probably depends on country specific conditions.



## **CHAPTER 6**

### **CONCLUSION AND DISCUSSION**

#### **6.1 Introduction**

Although it has often been argued that fertility decisions are not made in pure isolation, the role of fertility norms tend to be overlooked in contemporary research. Norms are considered to be moral rules of what one should (not) do and are assumed to guide behavior. When studying determinants of fertility behavior, however, most studies focus on structural factors and individual background characteristics. The causes and consequences of individual norms are often neglected in fertility research. The aim of this dissertation is twofold: First, to find out why individual fertility norms differ and to what extent these norms affect fertility behavior; Second, to explain why fertility norms vary over time and between countries.

We investigated fertility norms from a micro- and macro-level perspective. In Chapters 2 and 3 we extended research on micro-explanations and fertility norms by not only taking into account one's socio-economic background and position, but also one's dynamic life course. In addition, we examined the effects of norms expressed by one's family network, which are often considered highly influential but remain an understudied research area. We studied decision-making among couples by examining the role of dissimilar fertility norms for future fertility behavior. In Chapters 4 and 5, we turn to macro-level perspectives on fertility norms by studying national context characteristics in order to examine differences between societies. First, we focus on only one country, the Netherlands, and apply a historical perspective to examine associations between changes in the societal context over time and fertility norms. We then continued with examining European differences in fertility norms by comparing modernization processes and social institutions of

almost all countries of Europe. Analyses were carried out using three datasets: The Netherlands Kinship Panel Study (Dykstra et al., 2004), Cultural Change in the Netherlands surveys (Social and Cultural Planning Office, 1996), and the European Values Study (EVS, 2010).

Section 6.2 offers a summary of the main findings of this dissertation by answering the research questions regarding the causes and consequences of fertility norms. In section 6.3 we discuss the contributions of this study to fertility research as well as the implications of our results for society as a whole. This chapter concludes with section 6.4 in which limitations and suggestions for future research are discussed.

## **6.2 Summary of findings**

### *6.2.1 Couple's fertility norms and joint fertility behaviour*

We started this dissertation with examining the influence of individual fertility norms on fertility behavior accurately. We studied the influence of norms using a couple's perspective by asking:

- 1) *To what extent do husbands and wives have similar fertility norms and to what extent do these norms affect joint fertility behavior?*

We used the first two waves of the Netherlands Kinship Panel Study (2002-2004 and 2006-2007) and we focused on the likelihood of experiencing a second or higher-order birth between the two waves. The fertility norms of 887 couples were examined and both husband and wife reported their ideal family size themselves. Figure 6.1 displays a schematic overview of the theoretical considerations that are the focus of attention in Chapter 2.

We started our statistical analysis with examining whether socialization and demographic characteristics of both husband and wife influenced fertility behavior. We found that the larger one's family of origin, the more likely one is to have another child, which fits the results of earlier studies on the influence of the family of origin (Murphy & Knudsen, 2002; Rijken & Liefbroer, 2009). Remarkably, the effect of wife's number of siblings appeared to be much stronger than husband's number of siblings.



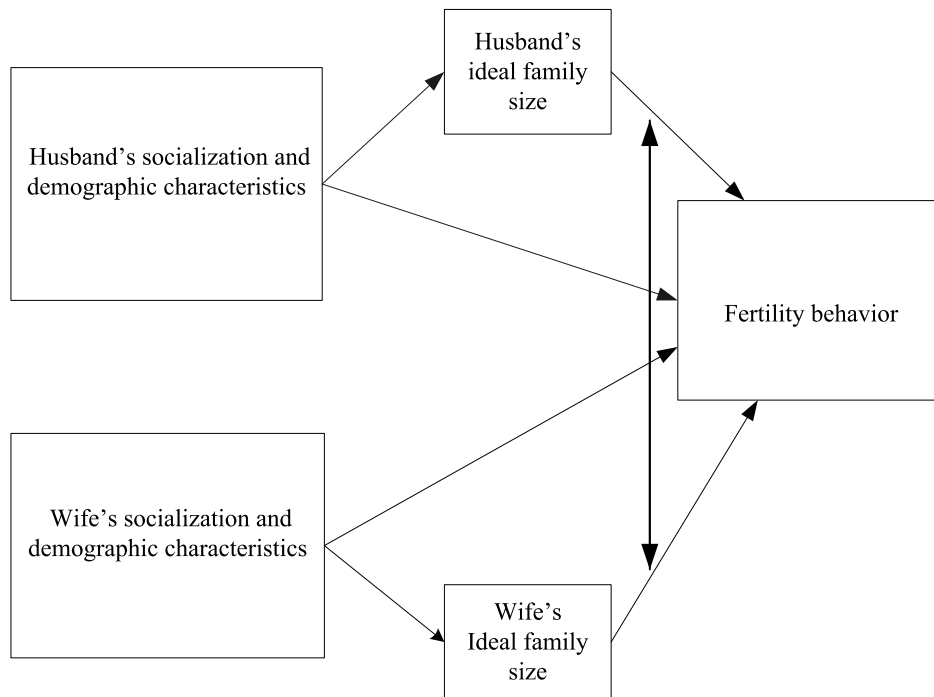


Figure 6.1: Schematic overview of relations of interest in the analyses on both partner's fertility norms and consequent fertility behavior

A next step in our analysis was to add both husband's and wife's fertility norms to the model containing socialization and demographic characteristics. In line with previous research on fertility values and norms of both husband and wife, we found that dissimilarity between partners occurs quite often (Jansen & Liefbroer, 2006). In our sample, 35 percent of the couples reported different ideal family sizes. In case of dissimilar fertility norms, wives more often reported higher ideal family sizes compared to their husbands than the other way around.

It became clear that fertility norms affect fertility behavior, because the odds of experiencing another birth are significantly higher for those having fewer children than their ideal family size compared to those with a family size that equals their ideal number of children. Using a couple's perspective appeared to be useful since this result has been found for both partners. Another interesting result is that fertility norms partially mediate the effect of socialization factors. The effect size of wife's number of siblings, for instance, was reduced considerably when fertility norms were added to the model.

Since we have found that partners sometimes hold different ideas about the ideal size of a family, the question rises whether both partners' norms are of equal importance for joint fertility behavior. We found that most of the time both husband and wife influence decision-making equally. This means that half the couples will follow husband's fertility norm and half the couples follow wife's norm. In case of unequal decision power, wife dominance with respect to fertility decisions is most likely to occur. In addition, the working arrangement of partners matters for making fertility decisions. In line with our expectations, both spouses affect decision-making when they both participate on the labor market. Among dual-earners equal decision-making influence is most likely to occur, whereas postponement of another birth is most likely among single-earners. The latter suggests that gender-specific decision making is less likely among single-earners. Single-earners rather postpone another birth, which might be due to an income restriction.

Our study used a strong panel multi-actor design by examining the fertility norms of both husband and wife for more than 800 couples. Our results showed that fertility norms affect fertility behavior in two ways: First through mediating socialization effects and second by adding direct effects. Thus, fertility does not solely depend upon socio-economic considerations. The results of Chapter 2 provide clear evidence for the notion that both husband's and wife's norms should be studied because both partners determine joint fertility.

### *6.2.2 Individual characteristics and fertility norms*

Since the results of Chapter 2 have shown clearly that fertility norms are very important to explain fertility behavior, the remaining chapters of this dissertation focus on explaining differences in fertility norms. The second research question was:

*2) To what extent are individual fertility norms affected by one's socio-demographic characteristics, social network and life course events?*

In order to investigate why individual fertility norms differ between individuals we again used the two waves of the NKPS (2002-2004 and 2006-2007) and studied 5309 Dutch respondents. For studying individual differences in fertility norms, we used three explanations as depicted in Figure 6.2, namely:

(1) socio-demographic background, (2) norms expressed by the family network and (3) life course events.

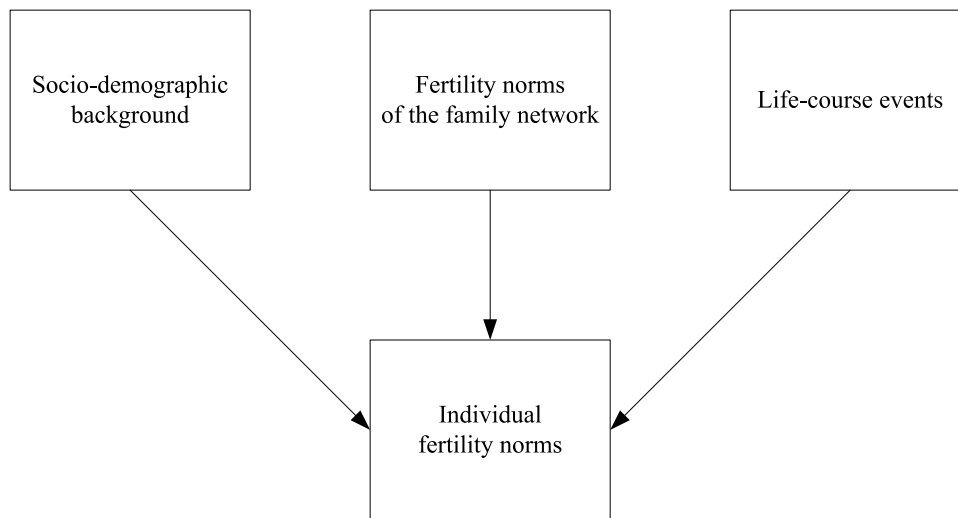


Figure 6.2: Schematic overview of relations of interest in the analyses on determinants of individual fertility norms.

The results with respect to the first explanation have yielded interesting results. Remarkably, the youngest respondents in the sample have the strongest fertility norms. We think that this can be explained because they are not confronted personally with the costs related to parenthood. Previous studies also pointed at the importance of religion on fertility norms (McQuillian, 2004). It has been argued, however, that a relation between religious socialization and norms might not show up because differences among religious groups might be due to differences in socio-economic background (Goldscheider, 1971; Zhang, 2008). On the other hand, researchers argue that religious teachings are responsible for differences in norms across religious groups (see for example: McQuillian, 2004). Our results have shown that both considerations are relevant, since some of our religious socialization effects disappear or are relatively weak once socio-economic characteristics like educational level are included. Those socialized in a Muslim group, however, have significant stronger fertility norms compared to those not religiously socialized, even when socio-economic characteristics are taken into account.

Our second explanation for differences in individual fertility norms considers the influence of the fertility norms expressed by significant others. Again, we benefit from the multi-actor character of the NKPS, in which also the family network of the main respondent is interviewed. We found significant correlations between the

fertility norms of the main respondent and his or her partner, sibling, parent and child. Fertility norms within generations (partners, siblings) appeared to correlate stronger than the fertility norms between generations (parents and children). Even after controlling for one's socio-demographic background, own norms at  $t_1$  and life course events, the fertility norms of the partner, a sibling and a child remain of substantial importance for one's fertility norms at  $t_2$ . Thus, our results confirm that fertility norms expressed by family members affect one's own fertility norms.

Our third explanation focuses on the influence of life course effects on fertility norms. In line with our expectations, those whose relationship ended between the two waves had weaker fertility norms compared to those who were single at both times. This finding suggests that people tend to become less family-oriented when their relationship ends. In addition, the birth of a first or higher-order child strengthens one's fertility norms, as was predicted by the cognitive dissonance theory. When looking at the influence of life course events, however, we have to keep in mind that effect sizes are relatively small.

### *6.2.3 Trends in fertility norms in the Netherlands, 1965-1996*

After we investigated micro-level explanations for differences in fertility norms, we continued with examining macro-level determinants of fertility norms in the second part of this book. The changing Dutch context between 1965 and 1996 is the focus of attention in Chapter 4, resulting in the following research question:

- 3) *To what extent is the overall change in acceptance of childlessness in the Netherlands between 1965 and 1996 due to cohort replacement and intra-cohort changes?*

Figure 6.3 shows that Chapter 4 uses cohort replacement and intra-cohort changes in order to explain long-term changes in the public acceptance of voluntary childlessness. Cohort replacement refers to the changing composition of the population by claiming that older and often more conservative cohorts are naturally replaced by younger and generally more modern cohorts (Inglehart, 1977). It is assumed that during socialization values and norms are formed and remain rather

stable over time. Intra cohort change, on the other hand, is important when birth cohorts become more or less permissive over time when they get older. Period effects and life-course effects can be responsible for changes in norms among certain birth cohorts over time.

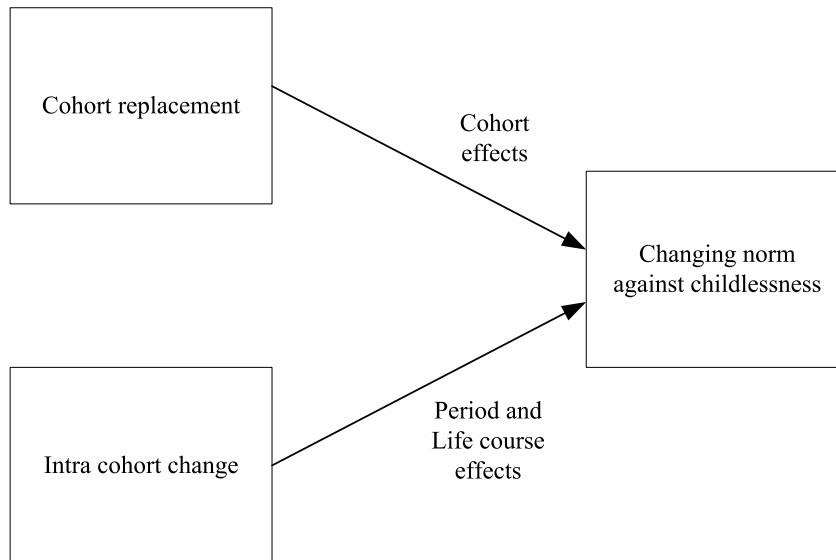


Figure 6.3: Schematic overview of relations of interest in the analyses on long-term changes in the public acceptance of voluntary childlessness in the Netherlands

Repeated cross-sectional data, the Cultural Change in the Netherlands (CCN) surveys, are used in Chapter 4. We studied 24,016 respondents from 13 waves in order to investigate the origins of social change in general and the acceptance of childlessness in particular. Our results showed that there has been an enormous shift in the acceptance of voluntary childlessness. In 1965, approximately 20 percent agrees that a couple should be able to decide not to have children and this percentage increased to about 90 percent in 1996. The rise in acceptance of voluntary childlessness was most prominent between 1965 and 1975. With respect to the sources of social change, linear decomposition revealed that intra-cohort change was by far most important between 1965 and 1980. Between 1983 and 1996, however, cohort replacement overshadowed intra cohort effects. In other words, in the first time period (1965-1980) the public opinion regarding childlessness changed because members of existing cohorts changed their norm regarding parenthood. During the second part of our time-span (1983-1996) the changing composition of society, in which older more conservative cohorts are replaced by younger and more tolerant cohorts, was mainly responsible for more permissive views towards childlessness.

#### 6.2.4 Cross-national differences in fertility norms

In the final empirical chapter of this dissertation, the focus shifted from the Dutch context to a comparative perspective in which country differences in fertility norms are the central focus of attention. The fourth and final research question of this dissertation investigated differences in fertility norms between European countries by asking:

- 4) *To what extent do Europeans have different norms against childlessness and how can differences between countries be explained?*

In order to answer research question 4, the fourth wave of the European Values Study was used. We conducted multi-level analyses to find out to what extent fertility norms differ between European countries. A major advantage of this technique is that it accounts for the nested data structure, which is necessary since observations of people from the same country are not independent but correlated. Besides, multi-level models are able to decompose the variance in fertility norms into two different levels, in our case the country – and the individual level (Snijders & Bosker, 1999). My sample consisted of 55,476 Europeans from 46 countries.

In general, the results showed that there are substantial differences in fertility norms between European countries. More than 70 percent of the Bulgarian people in our sample (strongly) agreed with the statement that it is a duty towards society to have children, whereas about only 5 percent of the Swedish and Dutch respondents agreed with this statement. Now that we have seen that fertility norms differ substantially across Europe the question rises why Europeans think differently about parenthood. Figure 6.4 shows that we considered the importance of three context-level explanations, which focus on modernization, social institutions and compositional factors.

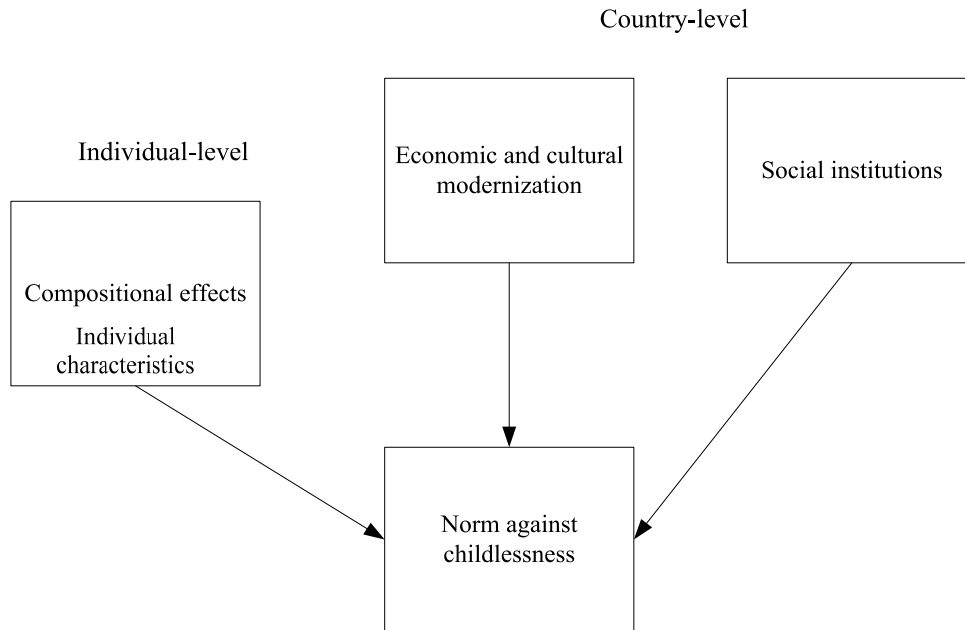


Figure 6.4: Schematic overview of relations of interest in the analyses on cross-national differences in norms against childlessness

On the basis of the multi-level models three conclusions can be drawn. First of all, compositional effects contribute to the found variance on the country level. More than one third of the original variance is explained by individual-level variables. Hence, part of the differences in fertility norms between European countries is due to an unequal distribution of individual characteristics across countries. Income and religious denomination are the most important individual-level determinants: The higher one's household income, the weaker one's fertility norm. In line with the results found in Chapter 3 we found substantial religion effects. Strongest fertility norms are found among Muslim respondents, whereas Protestants reported weak fertility norms.

Second, in the next model the social institutions of a country were added. This model revealed that the fertility norms of former communist countries are stronger compared to the norms of countries without a communist history. This result can be explained by the hypothesis that changes in the value climate of post-communist countries started only recently due to political and economic changes that emerged after the fall of the communist regime (Sobotka, 2011). We also conclude that in countries with a Protestant heritage significantly weaker fertility norms were found compared to countries with a Catholic tradition. The strongest fertility norms,

however, were reported in countries with an Orthodox heritage. By adding communist history and religious heritage the explained variance at the country level increases to 74 per cent.

Third, in addition to the social institutions of a country modernization is also related to fertility norms. Economic modernization is associated with weaker fertility norms, whereas higher levels of postmaterialism and gender equity, our proxies for cultural modernization, also lead to weaker fertility norms. By including economic and cultural modernization 82 per cent of the between-country variance was explained. Concluding, the results of our multi-level models revealed that there is substantial cross-national variation in fertility norms in Europe. Compositional effects as well as a country's heritage and modernization are relevant determinants of fertility norms in European countries.

### **6.3 Discussion of findings**

#### *6.3.1 Contribution to fertility literature*

This dissertation extends research on fertility by examining both micro- and macro-level determinants of fertility norms. Therefore, we briefly summarize the main contributions of our study. First, the micro-level section of this book showed that fertility norms matter because they not only directly determine fertility behavior but also mediate other socio-demographic predictors of fertility behavior. Furthermore, norms do not only affect behavior but are also affected by behavior. Our analyses on the reciprocal relation between norms and behavior showed that fertility norms sometimes become stronger or weaker over the life course. As a consequence of changes in partner and parental status, fertility norms changed.

Second, the design of the data sets used in this book allowed for studying various contexts in which fertility norms are formed. A major advantage of the Netherlands Kinship Panel Study data, for example, is that the multi-actor data provided us with norms of several members of one's family network. The NKPS enabled us to examine the fertility norms of one's partner, parent, sibling and child. So we were able to measure actual similarity in fertility norms within family networks rather than perceived norms. Besides, our analyses rely on norms reported by family members themselves rather than on proxy-reports, which are less reliable than multi-actor data, especially when norms are the topic of interest.



This dissertation also examined whether the macro-context shapes one's fertility norms. Long-term changes in the acceptance of voluntary childlessness in the Netherlands, has to the best of our knowledge not been tested before. Due to the repeated cross-sectional Cultural Change in the Netherlands surveys, we could analyze the sources of change in the shift towards higher levels of acceptance of childlessness for more than thirty years. Our main finding that the rising acceptance of voluntary childlessness is primarily caused by macro-societal changes (intra-cohort effect) rather than changing composition of the population (cohort replacement effect), suggests that the country context plays a crucial role in the changing normative climate in a country. This brings us to the final contribution of this study which aims at clarifying differences in fertility norms between European countries.

The EVS extends our knowledge of fertility norms by providing information about the fertility norms in 46 European countries. In previous studies examining the cultural climate of European countries, the number of East European countries is often restricted. The 2008 wave of EVS included all East European countries and showed that there are large differences in fertility norms between European countries. The fertility norms of less rich countries are indeed stronger than in rich countries. We conclude that declining fertility norms are part of the ongoing modernization process because gender equality and postmaterialism are most strongly related to fertility norms.

### *6.3.2 Societal implications*

This study aimed at improving our knowledge of fertility norms, which appeared to be an important determinant of fertility behaviour. Understanding the causes of fertility behaviour is relevant, because fertility affects individual lives and society as a whole. This dissertation shows that one should acknowledge that fertility behaviour is also affected by the normative context in which people live and is not purely the result of socio-economic characteristics such as one's financial situation.

Research on fertility norms also sheds light upon the processes of individualization and modernization within society. In general, modern values stressing individual freedom of choice go together with weaker fertility norms, as can be seen in Figure 6.5. Based on previous research on tolerance (Draulans & Halman,

2005) we constructed a scale containing tolerance regarding abortion, invitro fertilization, divorce, homosexuality, euthanasia and suicide (Cronbach's alpha = 0.84). Figure 6.5 shows for example that there is a strong significant negative correlation on the country level ( $r = -0.80$ ) between the average tolerance level of a country and mean fertility norms. The higher the average level of tolerance, the weaker fertility norms are. In several Scandinavian countries and the Netherlands, for example, weak fertility norms are found as well as high levels of tolerance.

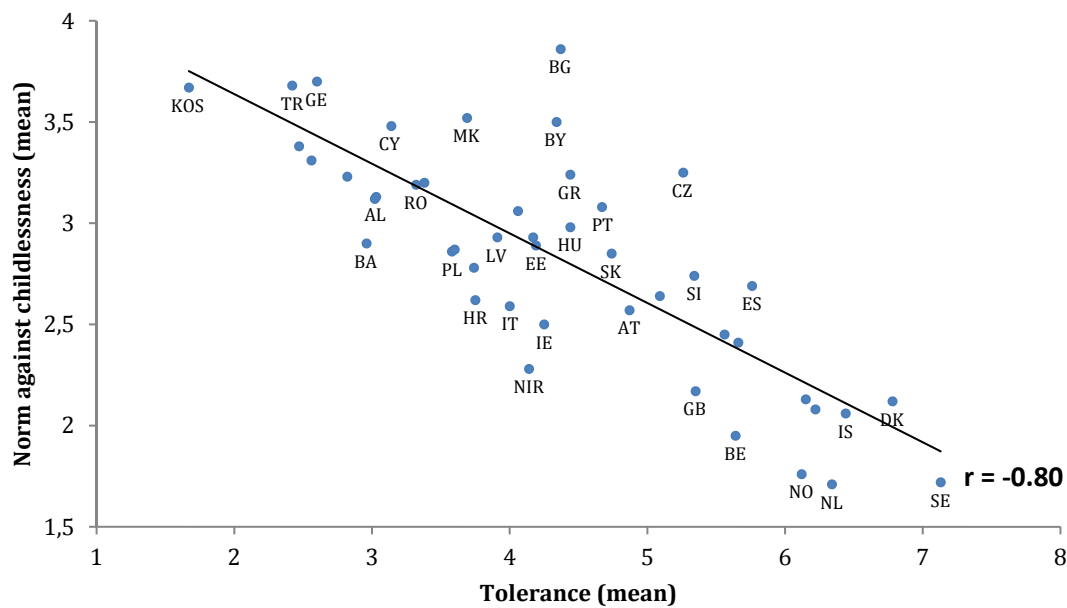


Figure 6.5: Correlation on the country level between norms against childlessness and tolerance

Source: European Values Study (EVS) wave 2008 (weighted results)

The strength of fertility norms has consequences for both society and the individual. In societies with weaker fertility norms, perceived individual costs and benefits will be more important for fertility decisions due to more personal freedom. Figure 6.6 reveals that norms seem to be only part of the explanation for declining fertility. Norms against childlessness are negatively correlated with the proportion of childless women aged 45 and over. The highest levels of childlessness are found in countries with weak norms against childlessness such as the Netherlands and Finland. Low levels of childlessness can be observed in countries like Albania and Bulgaria. However, Figure 6.6 also shows that some Scandinavian countries and some West European countries (France and the Netherlands) have approximately similar weak fertility norms while the percentage of childless women differs substantially. The

different fertility levels in these countries are likely due to other context characteristics like child care availability. While policymakers are unable or unwilling to intervene in the fertility norms people have, structural circumstances can be influenced more easily through policy interventions. Hence, in countries with weaker normative pressure fertility behaviour can be influenced by for instance facilitating the combination of childcare and work.

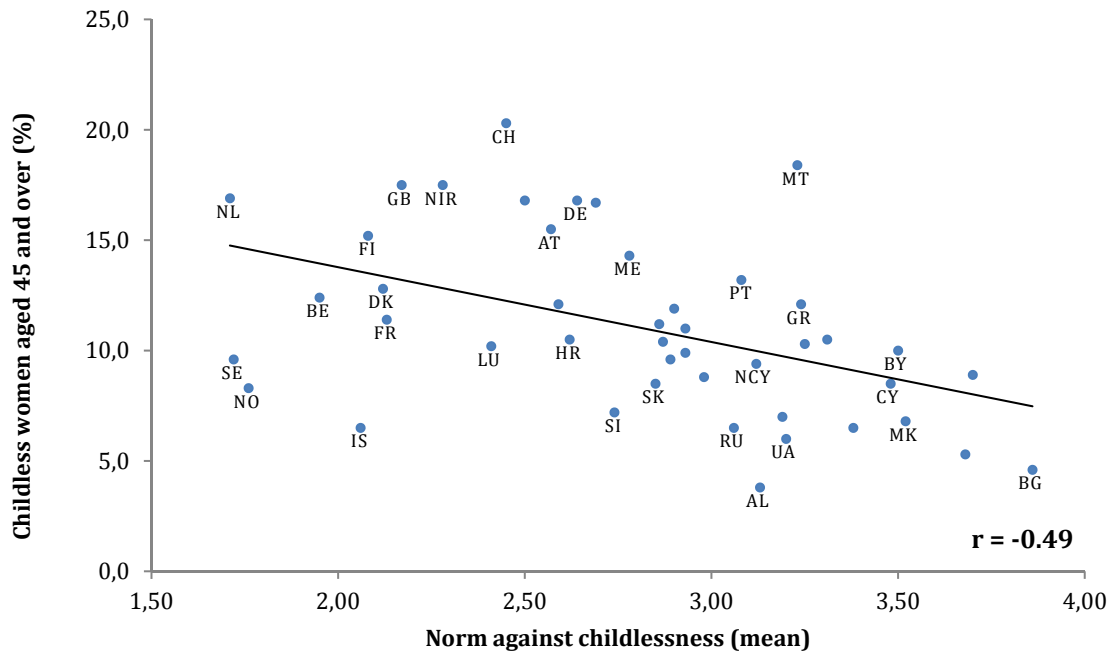


Figure 6.6: Correlation on the country level between the occurrence of childlessness and norms against childlessness  
 Source: European Values Study (EVS) wave 2008 (weighted results)

The normative context people are living in is not only important for people's behavior, but also for their levels of well-being. Inglehart, Foa, Peterson and Welzel (2008) found that there is a universal relation between free choice and happiness. Multi-level models showed that a sense of free choice as well as tolerance towards outgroups increase happiness, even when controlling for individual and societal economic development. They argue that people living in more tolerant societies are happier because the more open social norms in their country give them more personal freedom. People are more likely to pursue their happiness by adopting alternative lifestyles. Hence, in more tolerant societies instead of living the traditional family life with children, one can decide to not have children without experiencing internal conflict or social sanctions. In Figure 6.7 a considerable negative correlation

( $r = -0.71$ ) on the country level between norms against childlessness and happiness is found. The stronger the norm against childlessness in a country, the lower the average level of happiness.

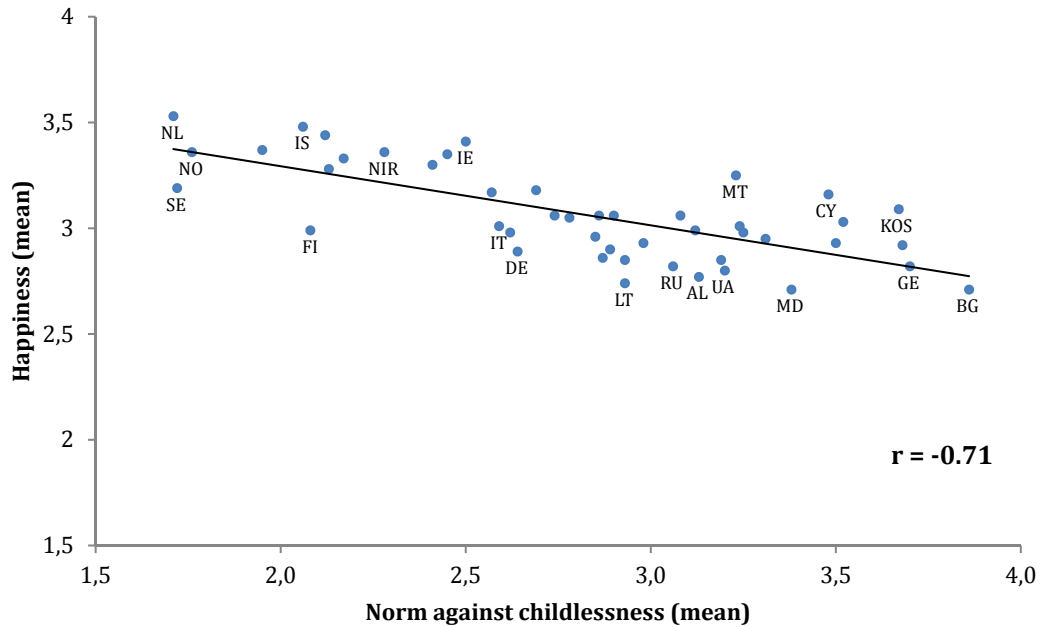


Figure 6.7: Correlation on the country level between average happiness and norms against childlessness

Source: European Values Study (EVS) wave 2008 (weighted results)

#### 6.4 Suggestions for future research

Although this study has answered a number of research questions, it simultaneously raised new research questions that need to be answered in future research. First, we discuss four suggestions that are based on the limitations of empirical chapters in this dissertation. After that we conclude with four suggestions following the results of this study.

##### 6.4.1 Limitation-based suggestions for future research

In two chapters we used the Netherlands Kinship Panel Study data. This data has major advantages. However, with only two waves changes in norms caused by the life course are difficult to measure, since people might not have enough time to change their views. In order to measure stability of fertility norms and the adaptation process of norms as a result of fertility behaviour, more waves of the NKPS would be preferable. Future research on fertility norms and behaviour should benefit from additional waves of the NKPS data that are becoming available.

Studying couple's fertility behaviour appeared to be useful but when doing so our sample was relatively small, which is why it was rather complex, and sometimes even impossible, to distinguish between different groups of couples. More cases are needed to study working-arrangements and the income distribution among partners more carefully. Therefore, surveys particularly focusing on couples in their reproductive age would be useful, because in normal panel datasets many people are not in the reproductive life stage which naturally reduces sample size. In addition, sample sizes are low due to attrition of couples, who for instance ended their relationship (Rijken, 2010).

Future research would also benefit from more and better measures of (shared) fertility norms of both partners by asking more directly if, and if so how often, couples discuss parenthood issues. It would also be interesting to find out whether dissimilar norms about having children also affect other kinds of behaviour. What happens to their relationship when couples have different opinions about having a first or higher-order child? Are partners trying to convince one another in case of disagreement or do they veto the decision to have another child which might increase the chance of ending the relationship?

Finally, the last empirical chapter of this book is based on data collected across Europe. The European Values Study is a rich dataset for analyzing modernization processes in Europe. The data revealed that major differences in fertility norms exist. In Chapter 5 fertility norms were the dependent variable. As we have seen in Chapter 2, fertility norms as independent variables are also relevant in determining fertility behavior. Cross-national panel data are preferred to study the role of fertility norms for fertility among different countries, since it is well-known that causality processes are less clear-cut when studying cross-sectional data. Although we showed that fertility norms influence fertility behavior in the Netherlands, it would be interesting to see whether we can generalize our results to other European countries by using comparative panel data.

#### *6.4.2 Findings-based suggestions for future research*

The study of fertility norms yielded some interesting results that ask for further examination in future research. To start with, West-European respondents appeared to have relatively weak fertility norms. Many people disagreed with the idea that

everyone has the obligation to have children. But what if childlessness occurs close by? It is much likely that acceptance of voluntary childlessness significantly changes when one's own child decides not to have children, since previous research has shown that children sometimes experience parental pressure to enter parenthood because their parents desire grandchildren.

In addition, our finding that especially intra-generational ties matter for one's own fertility norms suggests that siblings might serve as an example for each other's fertility behavior. How siblings experience each other's fertility transitions might influence own behavior, which is why it would be interesting to have additional data about the perceived consequences of births of significant others. Hence, measurements of how, and if so how often, respondents exchange ideas about parenthood with family and friends already having children, would contribute to our understanding of micro-contextual influences on fertility.

Next, this dissertation has refuted the hypothesis that norms might have become less relevant in times of increasing individualization. Norms matter even in highly industrialized countries. Hence, norms do not disappear but are changing. Previous research has distinguished three types of norms: age norms, quantum norms and sequence norms (Liefbroer & Billari, 2008). Age norms refer to upper and lower age limits for different kinds of behavior, for instance entering parenthood. Quantum norms refer to how often a certain event, in this case a birth, should take place. Sequence norms are about in what order events should happen, for instance the norm that claims that one should be married before childbirth. In this dissertation we studied quantum norms, since we examined ideal family sizes and remaining childlessness (a so-called 'never' norm). Previous research claimed that the other types of norms might also be relevant to study cross-nationally. Due to the increasing labour market possibilities for women across Europe, a more elaborated study of the combination of work and care would contribute to current fertility studies.

To conclude, studying the acceptance of new kinds of living arrangements with children would also be a welcome addition to the literature. Over time, new arrangements occurred across Europe. Nowadays, children can also live with only a mother or a father due to either divorce or death of the other parent. New fertility techniques also create new possibilities for instance due to invitro-fertilization women have the possibility of becoming a mother without having a partner.

In addition, homosexual couples are not only allowed to get married in some European countries, sometimes they can also adopt children. Nowadays, children can be raised by one parent or two (same sex) parents.





# ***SAMENVATTING***

## ***(SUMMARY IN DUTCH)***

### ***Achtergrond***

Beleidsmakers en demografen uiten geregeld hun bezorgdheid over demografische ontwikkelingen in Europa. De afgelopen decennia zijn veel Europese landen geconfronteerd met een sterke afname van geboorten (Frejka & Sobotka, 2008). De vraag rijst waardoor deze daling in geboorten wordt veroorzaakt. Voorheen werd de verklaring voor de afname in geboorten doorgaans gezocht in economische theorieën waarin rationele overwegingen, zoals kosten en baten, centraal staan (Kirk, 1996; Lesthaeghe & Moors, 2002). De algemene aanname is dat de economische voordelen van kinderen krijgen zijn afgenomen, terwijl de kosten die zijn verbonden aan ouderschap zijn gestegen (Morgan & Berkowitz King, 2001). Geïndustrialiseerde landen hebben tegenwoordig een uitgebreide verzorgingsstaat die ervoor zorgt dat ouders op latere leeftijd financieel minder afhankelijk zijn van kinderen dan vroeger het geval was (Fokkema & Esveldt, 2008; Morgan & Berkowitz King, 2001). De gestegen kosten hebben betrekking op de toegenomen arbeidsparticipatie van vrouwen. Het verrichten van huishoudelijke taken en het verzorgen van de kinderen is niet meer het enige en dus vanzelfsprekende toekomstperspectief van vrouwen. Het krijgen van een kind brengt voor vrouwen die participeren op de arbeidsmarkt onherroepelijk kosten met zich mee, gezien zij hun carrière minstens voor korte tijd moeten onderbreken. Bovendien gaan één of beide ouders vaak minder uren werken om zorg te dragen voor de kinderen.

Naast economische oorzaken voor dalende geboortecijfers zijn ook culturele verklaringen van belang (Jansen, 2002; Lesthaeghe & Surkyn, 1988). Een eerste culturele verklaring is individualisering, waarbij wordt aangenomen dat mensen meer autonoom zijn geworden en hun eigen beslissingen nemen doordat ze minder afhankelijk zijn van instituties en hun omgeving. Secularisering en postmaterialisme worden doorgaans gezien als uitingen van individualisering (Jansen, 2002).

Secularisering verwijst naar de afnemende invloed van religie en religieuze instituten in de moderne samenleving. Volgens Inglehart's (1977) postmaterialisme zijn zelfverwezenlijking en persoonlijke vrijheid belangrijker geworden omdat materialistische behoeften vervuld zijn dankzij economische ontwikkelingen. Op basis van individualisering, secularisering en postmaterilisme zou men kunnen verwachten dat normen minder belangrijk zijn geworden. Onderzoek toont echter aan dat in een geïndustrialiseerd land als Nederland normen een belangrijke rol blijven spelen bij het maken van grote beslissingen tijdens de levensloop zoals het verlaten van het ouderlijk huis, samenwonen en echtscheiding (Billari & Liefbroer, 2006; Billari, Philipov & Testa, 2009; Liefbroer & Billari, 2010).

Hoewel de invloed van normen op gedrag theoretisch wordt erkend, zijn empirische studies schaars (Jansen, 2002; Lesthaeghe & Moors, 2002). In dit proefschrift wordt stilgestaan bij de vraag in hoeverre fertiliteitsnormen het demografisch gedrag beïnvloeden. Er wordt niet alleen nagegaan in hoeverre fertiliteitsnormen door de tijd heen zijn veranderd, ook de verschillen tussen individuen en landen worden onderzocht. De meeste hoofdstukken gaan over fertiliteit in Nederland. In hoofdstuk 5 worden fertiliteitsnormen internationaal vergeleken.

#### *Maatschappelijke en wetenschappelijke relevantie*

Het bestuderen van fertiliteitsnormen is nuttig in zowel maatschappelijk als wetenschappelijk opzicht. Om te beginnen is het van belang om de oorzaken van dalende fertiliteit te achterhalen, omdat dalende geboortecijfers verstrekkende langetermijn gevolgen hebben voor de maatschappij. Veel ontwikkelde landen zullen de komende decennia worden geconfronteerd met vergrijzing dankzij de combinatie van dalende geboortecijfers en toenemende levensverwachting (Castles, 2003; Frejka & Sobotka, 2008; Lesthaeghe, 2011). Hierdoor zullen deze landen problemen krijgen met hun huidige pensioen-en zorgstelsels, doordat een groter deel van de bevolking aanspraak zal maken op sociale voorzieningen terwijl slechts een klein gedeelte van de werkzame bevolking beschikbaar is om de kosten te dragen (Kravdal, 2010).

Daarnaast zijn normen belangrijk vanwege verschillende redenen. Allereerst kan men door zich te gedragen in overeenstemming met de voorgeschreven normen sociale sancties zoals afkeuring en roddelen vermijden (Fishbein & Ajzen, 1975; Lesthaeghe,

1980; Liefbroer & Billari, 2010). Eerder onderzoek heeft aangetoond dat wanneer normen tegen echtscheiding sterk zijn de contactfrequentie met familie, vrienden en burens na een echtscheiding afneemt (Kalmijn & Uunk, 2007). Internalisering van normen is een tweede reden waarom mensen geneigd zijn normen te volgen. Het schenden van de eigen persoonlijke norm kan leiden tot gevoelens van schaamte en schuld (Liefbroer & Billari, 2010).

Bovendien wordt gesuggereerd dat door individualisering familiebanden zwakker kunnen worden (Jansen, 2002). Zwakke fertiliteitsnormen kunnen een indicator zijn voor de afbrokkeling van het traditionele gezin als institutie. Niet alleen klassieke maar ook recente sociologische studies tonen aan dat het gezin een belangrijke bron van sociale integratie is (Durkheim, 1951; Umberson, Pudrovska & Reczek, 2010). Gedurende de levensloop wisselen kinderen en ouders sociaal-emotionele en praktische steun uit.

Er zijn ook wetenschappelijke argumenten te noemen waarom het bestuderen van fertiliteitsnormen zinvol is. In eerdere studies zijn normen genegeerd, omdat onderzoekers van mening waren dat andere factoren (bijvoorbeeld sociaal-demografische achtergrondkenmerken) verantwoordelijk zijn voor de causale relatie tussen fertiliteitsnormen en demografisch gedrag (Moors, 2000). Dit proefschrift levert een bijdrage aan deze discussie door ook interveniërende factoren in beschouwing te nemen.

Methodologische beperkingen zijn een andere reden waarom culturele verklaringen voor dalende geboortecijfers nauwelijks empirisch zijn onderzocht. Om de causale relatie tussen normen en gedrag te onderzoeken zijn panel data nodig, waarbij fertiliteitsnormen gemeten zijn voorafgaand aan demografisch gedrag. Data die verzameld zijn op meerdere momenten in de tijd maken het bovendien ook mogelijk om de omgekeerde causale relatie te onderzoeken waarbij vertoond gedrag normen beïnvloedt.

Ten slotte maken de datasets die gebruikt zijn in dit proefschrift het mogelijk verschillende contexten waarin demografisch gedrag plaatsvindt te bestuderen. Zo wordt de invloed van zowel het familienetwerk (multi-actor data) als het land van herkomst (longitudinale en comperatieve data) onderzocht.

### **Onderzoeksvragen**

In dit proefschrift worden twee benaderingen gebruikt om fertiliteitsnormen te analyseren. Eerder onderzoek heeft aangetoond dat normen niet universeel zijn en door de gehele bevolking worden gedeeld. Bij de eerste twee onderzoeksvragen van deze dissertatie wordt een micro-perspectief toegepast. In dit eerste deel van het proefschrift staat de relatie tussen individuele kenmerken en fertiliteitsnormen centraal. In hoofdstuk 2 wordt eerst nagegaan in hoeverre de fertiliteitsnormen van partners overeenkomen en het gezamenlijke demografisch gedrag beïnvloeden. In hoofdstuk 3 wordt vervolgens aandacht besteed aan individuele verschillen in fertiliteitsnormen. Op de volgende onderzoeksvragen wordt een antwoord gezocht.

1) In hoeverre komen de fertiliteitsnormen van partners overeen en in welke mate beïnvloeden deze normen het gezamenlijke vruchtbaarheidsgedrag?

2) In welke mate worden individuele fertiliteitsnormen beïnvloed door sociaal-demografische kenmerken, het sociale netwerk en levenslooptransities?

In het tweede gedeelte van dit proefschrift wordt een macro-perspectief gebruikt om verschillen in fertiliteitsnormen te verklaren. In hoofdstuk 4 wordt uitgebreid stilgestaan bij de oorzaken van de opvallende verandering in publieke acceptatie van vrijwillige kinderloosheid in Nederland tussen 1965 en 1996. In hoofdstuk 5 wordt aandacht besteed aan de vraag waarom fertiliteitsnormen verschillen tussen Europese landen. In het tweede gedeelte van het proefschrift staan de volgende onderzoeksvragen centraal.

3) In hoeverre is de algemene verandering in de acceptatie van vrijwillige kinderloosheid in Nederland tussen 1965 en 1996 veroorzaakt door cohort vervanging en intra-cohort verandering?

4) In hoeverre hebben Europeanen verschillende normen met betrekking tot kinderloosheid en hoe kunnen verschillen tussen landen worden verklaard?

**Data**

Om de vier onderzoeksvragen die centraal staan in deze dissertatie te kunnen beantwoorden, hebben we gebruik gemaakt van drie verschillende datasets. De resultaten van hoofdstuk 2 en 3 zijn gebaseerd op de eerste twee waves van de Netherlands Kinship Panel Study (NKPS) uit 2002-2003 en 2006-2007 (Dykstra, Kalmijn, Knijn, Komter, Liefbroer & Mulder, 2004). De steekproef van de NKPS dataset is representatief voor de Nederlandse bevolking. Verder is het van belang dat de NKPS bestaat uit paneldata, wat inhoudt dat dezelfde groep van respondenten op meerdere momenten in de tijd is ondervraagd. Op deze manier kan de causaliteit van normen en gedrag, zoals bestudeerd in hoofdstuk 2, beter onderzocht worden. Een ander waardevol aspect van NKPS is het multi-actor karakter van de dataset, wat betekent dat naast de hoofdrespondent ook diens directe familieleden zijn onderzocht. Dit maakt het mogelijk ook de directe invloed van iemands sociale familienetwerk op de eigen normen te bestuderen, zoals onderzocht is in hoofdstuk 3.

Daarnaast is gebruik gemaakt van de Culturele Veranderingen data van het Sociaal en Cultureel Planbureau (Social and Cultural Planning Office, 1996). Ik heb de data uit 1965, 1970, 1975, 1980, 1983, 1985, 1987, 1991, 1992, 1993, 1994, 1995 en 1996 samengevoegd, zodat een dataset ontstaat met meer dan 24.000 respondenten. Een beperking van de Culturele Veranderingen surveys is dat er beperkte achtergrondinformatie beschikbaar is over de eerste waves. Ondanks deze beperking maken de CV data wetenschappelijke vooruitgang mogelijk, doordat de publieke opinie met betrekking tot vrijwillige kinderloosheid in een periode van meer dan dertig jaar kan worden onderzocht.

Ten slotte wordt gebruik gemaakt van de European Values Study (EVS) (EVS, 2010). De European Values Study is een rijke dataset omdat de waarden en normen van mensen op allerlei gebieden aan bod komen. Er wordt onder meer nagegaan hoe mensen denken over werk, religie, politiek en familie. Op vier momenten in de tijd zijn de waarden en normen van Europeanen gemeten, namelijk in 1981, 1990, 1999 en 2008. In dit proefschrift wordt gebruik gemaakt van de laatste wave verzameld in 2008, waarin alle Europese landen zijn opgenomen. De EVS data zijn een waardevolle bron om landenverschillen in fertiliteitsnormen te onderzoeken. Om te beginnen is er ook informatie opgenomen over de sociaal-demografische achtergrond van respondenten, zodat de rol van individuele kenmerken uitvoerig kan worden

onderzocht. Bovendien maakt de EVS het mogelijk waarden en normen van Oost-Europeanen in kaart te brengen, een groep die tot dusverre door gebrek aan onderzoeksgegevens vaak buiten beschouwing werd gelaten. In hoofdstuk 5 zullen de fertiliteitsnormen van 55.475 Europeanen afkomstig uit 46 landen geanalyseerd worden.

De vier onderzoeksvragen die centraal staan in dit proefschrift worden beantwoord in vier empirische studies. In de volgende paragraaf zal ik kort de opzet en belangrijkste resultaten samenvatten.

### ***Vier empirische studies***

#### *De fertiliteitsnormen van beide partners en gezamenlijk demografisch gedrag*

In hoofdstuk 2 wordt onderzoeksvraag 1 beantwoord. In deze studie wordt vooruitgang geboekt door te profiteren van het multi-actor karakter van de NKPS data. Dit maakt het mogelijk de invloed van de fertiliteitsnormen van beide partners op het latere demografische gedrag te bestuderen. Fertiliteitsnormen hebben in dit hoofdstuk betrekking op het ideaal kindertal. Hoewel het een normatieve verwachting is jegens andere mensen, zal het door veel mensen als een richtlijn voor eigen gedrag worden beschouwd. Verschillen in de normen van mannen en vrouwen zijn in eerder onderzoek reeds gevonden, maar dit betekent niet dat er automatisch ook verschillen zijn binnen koppels. Mensen kiezen vaak een partner die in bepaalde opzichten, bijvoorbeeld in cultureel opzicht, hetzelfde is als henzelf. Om de causale relatie tussen normen en gedrag goed te onderzoeken, zijn normen eerder in de tijd gemeten dan gedrag. De steekproef bestaat uit koppels die al tenminste 1 kind hebben. De keuze voor tweede, derde of vierde kind is interessanter om te onderzoeken omdat dan de transitie naar ouderschap al is gemaakt.

Uit onze eerste analyses komt naart voren dat de fertiliteitsnormen van partners wel positief samenhangen, maar dat de samenhang niet bijzonder sterk is ( $r = 0.45$ ). In ongeveer 1 op de 3 koppels noemen partners een ander ideaal kindertal, waarbij vrouwen vaker dan mannen een grotere ideale gezinsgrootte noemen dan hun partner. Gezien partners niet vanzelfsprekend het zelfde ideaal voor ogen hebben, is het interessant de gevolgen van ongelijke fertiliteitsnormen te onderzoeken. Maar eerst wordt stilgestaan bij de vraag of en hoe fertiliteitsnormen het demografische gedrag van het koppel beïnvloeden.

Om de invloed van normen op gedrag binnen koppels vast te stellen is er eveneens rekening gehouden met de sociaal-demografische achtergrond van beide partners. In overeenstemming met eerder onderzoek laten de resultaten zien dat het ouderlijk gezin een invloed heeft op het demografische gedrag. Hoe groter het gezin van herkomst, des te groter de kans om nog een kind te krijgen. De grootte van het ouderlijk gezin van beide partners speelt een rol op het eigen demografische gedrag, maar het effect van het ouderlijk gezin van de vrouw is het sterkst.

Vervolgens zijn de fertiliteitsnormen van beide partners aan het model toegevoegd. De normen van beide partners hebben een effect op het gezamenlijke gedrag. Wanneer het ideaal aantal kinderen nog niet bereikt is, is de kans groter dat het koppel nog een kind krijgt. Dit model laat ook zien dat normen niet alleen op directe wijze het gedrag beïnvloeden, maar ook indirect via achtergrondkenmerken. Het effect van gezinsgrootte van het gezin van herkomst neemt bijvoorbeeld aanzienlijk af. Dit betekent dat het overdragen van demografisch gedrag van ouders op kinderen deels via overdracht van normen verloopt.

Wat zijn de consequenties van ongelijke fertiliteitsnormen van partners? In eerder onderzoek zijn vier theoretische scenario's geschetst: de man of vrouw heeft de meeste invloed op de beslissing, beide partners hebben een gelijke invloed of een beslissing wordt uitgesteld. Mannelijke dominantie in het beslissingsproces wordt verwacht omdat mannen nog altijd meer hulpbronnen hebben dan hun partner. Aan de andere kant is vrouwelijke dominantie mogelijk omdat vrouwen nog steeds het grootste gedeelte van de zorg voor kinderen op zich nemen waardoor de keuze voor nog een kind vooral bij hen ligt. Mannen en vrouwen kunnen ook evenveel in te brengen hebben bij de keuze voor nog een kind. In dit geval zal bij de helft van de koppels met ongelijke normen de norm van de vrouw gevolgd worden en bij de andere helft de norm van de man. Het uitstellen van een beslissing is een laatste mogelijkheid.

De analyses laten zien dat gelijke invloed van beide partners het meest waarschijnlijk is. Als er al sprake is van dominantie dan wegen de normen van de vrouw zwaarder dan de normen van de man. Verder blijkt dat bij eenverdieners het uitstel-scenario het meest van toepassing is, terwijl bij tweeverdieners gelijke invloed het meest waarschijnlijk is. We concluderen dat de normen van beide partners een rol spelen bij de keuze nog een kind te krijgen. Mannelijke dominantie in het

beslissingsproces om nog een kind te krijgen is binnen Nederlandse koppels erg onwaarschijnlijk.

### Hoofdstuk 3

#### *Individuele kenmerken en fertiliteitsnormen*

Ondanks dat Nederland bekend staat om zijn tolerante klimaat zijn er individuen die betrekkelijk conservatief denken wanneer het gaat om gezinsvorming. In hoofdstuk 3 worden verklaringen gezocht waarom voor sommigen het krijgen van kinderen een meer centraal aspect in het leven is dan voor anderen. De invloed van sociaal-demografische achtergrondkenmerken, levensloopprocessen en de normen van het sociale netwerk worden in acht genomen. Achtergrondkenmerken en levensloop hebben de grootste invloed op fertiliteitsnormen. Een eerste bevinding is dat mannen, laagopgeleiden, respondenten met een Moslim achtergrond en respondenten met kinderen sterke fertiliteitsnormen hebben, waarbij vooral ouderschapsstatus een belangrijke factor is. Panel analyses tonen aan dat respondenten die een eerste kind hebben gekregen sterkere normen hebben, terwijl mensen bij wie de relatie is geëindigd tussen de twee meetmomenten zwakkere normen rapporteren. Dit laat zien dat normen niet alleen gedrag beïnvloeden, maar dat mensen ook hun normen afstemmen op de beslissingen die in het verleden zijn genomen, zodat cognitieve dissonantie wordt voorkomen. Ten slotte blijken de normen van familieleden er in beperkte mate ook toe te doen, zelfs na controle van achtergrondkenmerken. De normen van de partner hebben de grootste invloed gevolgd door normen gerapporteerd door een broer of zus.

### Hoofdstuk 4

#### *Ontwikkelingen in fertiliteitsnormen in Nederland tussen 1965 en 1996*

In hoofdstuk 4 worden de oorzaken van de enorme toename van acceptatie van vrijwillige kinderloosheid onderzocht. In de jaren '60 accepteerde slechts 20 procent de keuze van een koppel om bewust geen kinderen te krijgen, terwijl dit percentage halverwege de jaren '90 is gestegen naar 90 procent. Om de achterliggende oorzaken te onderzoeken wordt gebruik gemaakt van de gestapelde cross-sectionele dataset Culturele Veranderingen, waarbij op 13 momenten in de periode 1965 tot 1996 de publieke opinie ten aanzien van vrijwillige kinderloosheid is gemeten. In eerder



onderzoek worden twee belangrijke bronnen van sociale en culturele verandering onderscheiden, namelijk cohortvervanging en veranderingen binnen cohorten (Firebaugh, 1997). Een cohort kan gedefinieerd worden als een verzameling van individuen die in eenzelfde tijdsperiode geboren is (Ryder, 1965). Elke cohortgroep maakt verschillende maatschappelijke gebeurtenissen mee tijdens de socialisatieperiode, ofwel de perioden van kindertijd en jongvolwassenheid (Rodgers, 1982). Deze zogenaamde formatieve jaren drukken een blijvende stempel op de ideeën en normen van het individu (Ryder, 1965), omdat deze normen een afspiegeling zijn van de sociale en economische omstandigheden die plaats hebben gevonden tijdens de socialisatie (Inglehart, 1977). Hieruit volgt dat cohortgroepen verschillende fertiliteitsnormen hebben, omdat ze zijn opgegroeid in specifieke historische tijdsperioden. Onderzoek laat inderdaad zien dat oudere cohorten geneigd zijn meer conservatief en traditioneel te zijn (Inglehart, 1977, 1990) en daardoor waarschijnlijk vaker vrijwillige kinderloosheid afkeuren. Jongere cohorten hebben door socialisatie meer liberale en modernere ideeën en zijn meer tolerant ten opzichte van paren die geen kinderen willen krijgen. Volgens het scenario van cohortvervanging is sociale verandering het gevolg van een natuurlijk proces. De verschuiving in acceptatieniveaus van kinderloosheid in de samenleving is een gevolg van bevolkingsaanwas en sterfte, waarbij de nieuwe meer liberale cohorten, de oudere en meer traditionele cohorten vervangen die uitgestorven zijn.

Een tweede bron van sociale verandering beschrijft een proces dat leidt tot een meer revolutionaire verschuiving van normen binnen de samenleving, namelijk door verandering binnen cohorten (intra-cohort effecten; (Firebaugh, 1997). Dit proces verwijst naar verandering van normen onder alle leden van de samenleving in een bepaalde tijdsperiode, ongeacht het geboortecohort waartoe men behoort (Glenn, 1977). Wanneer verandering in normen een antwoord is op maatschappelijke gebeurtenissen en zich niet alleen beperkt tot de jongere generatie maar ook de oudere generatie beïnvloedt, dan kan dit leiden tot een snelle verandering van waarden binnen de samenleving. Het is van belang hier op te merken dat bij dit proces wordt aangenomen dat mensen hun leven lang openstaan voor waardenverandering, wat in tegenspraak is met het idee van cohortvervanging, waarbij stabiliteit van waarden na de periode van jongvolwassenheid het uitgangspunt is (Visser & Krosnick, 1998).

De resultaten van de lineaire compositie, laten zien dat voornamelijk veranderingen binnen cohorten verantwoordelijk zijn voor de verschuiving naar hogere acceptatieniveaus tussen 1965 en 1980. De verandering van de publieke opinie over kinderloosheid is in deze tijdsperiode niet zozeer veranderd door de vervanging of opvolging van verschillende groepen binnen de samenleving. In plaats daarvan hebben leden van bepaalde groepen (cohorten) hun vruchtbaarheidswaarden aangepast vanwege contextuele veranderingen die alle leden van de samenleving beïnvloed hebben. Om de verandering van de publieke opinie tussen 1983 en 1996 te verklaren is er een andere verklaring van toepassing. Voor deze tijdsperiode geldt immers dat de toename van de acceptatie van kinderloosheid juist wel vooral is veroorzaakt door de vervanging van oudere, meer conservatieve cohorten, door jongere, meer tolerante cohorten, wat refereert naar de veranderende samenstelling van de bevolking en maatschappij. Het lijkt erop dat de aangrijpende verandering van de acceptatie van vrijwillige kinderloosheid deel uitmaakt van andere belangrijke veranderingen die plaatsvonden in het Nederland van de jaren '60 en '70, alvorens acceptatieniveaus nivelleerden. Deze economische en demografische macro-mechanismen werken op twee manieren: Allereerst door het beïnvloeden van waarden met betrekking tot kinderloosheid tijdens de socialisatieperiode (cohortvervangings-effect) en door het beïnvloeden van deze waarden op latere leeftijd (veranderingen binnen cohorten).

## Hoofdstuk 5

### *Landenverschillen in fertiliteitsnormen*

In het laatste empirische hoofdstuk staan de fertiliteitsnormen van Europeanen centraal. Om meer inzicht te verkrijgen in de mogelijke oorzaken voor verschillen in Europese fertiliteitsnormen wordt gebruik gemaakt van twee verklaringen. Er wordt aandacht besteed aan Inglehart's moderniseringstheorie, waarin economische en culturele modernisering centraal staan. Daarnaast wordt ook de politieke en culturele geschiedenis van een land in beschouwing genomen.

De analyses in hoofdstuk 5 laten zien dat er substantiële verschillen zijn in de mate waarin Europeanen vrijwillige kinderloosheid afkeuren. Over het algemeen hebben mensen uit Noord- en West-Europese landen zwakkere fertiliteitsnormen, waarbij vrijwillige kinderloosheid wordt afgekeurd, dan mensen woonachtig in Oost-

en Zuid-Europese landen. In Bulgarije is bijvoorbeeld meer dan 71 procent het (helemaal) eens met de stelling dat het krijgen van kinderen een plicht is tegenover de samenleving. In Zweden en Nederland is dit ongeveer 5 procent.

Verdere analyses tonen aan dat niet alleen individuele kenmerken een rol spelen bij fertiliteitsnormen, maar dat ongeveer 21 procent van de variatie in fertiliteitsnormen te wijten is aan de kenmerken van het land waarin de respondent leeft. Daarom is onder meer het belang van de politieke en culturele geschiedenis van een land onderzocht. Fertiliteitsnormen blijken sterker te zijn in landen met een communistisch verleden dan in landen zonder communistische geschiedenis. Verder blijken zowel economische als culturele modernisering een invloed te hebben op fertiliteitsnormen. In landen met een hoger BBP per hoofd van de bevolking worden zwakkere normen gevonden dan in landen met een lager niveau van economische voorspoed. Sterkere fertiliteitsnormen worden verder gevonden in landen met gemiddeld lagere postmaterialisme scores en in landen met meer sekse-ongelijkheid. Wanneer alle landkenmerken tegelijkertijd worden geanalyseerd dan blijkt dat de effecten van een communistisch verleden en een Katholieke of Moslim achtergrond verdwijnen wanneer modernisering aan het model wordt toegevoegd. Met andere woorden, het effect van deze institutionele kenmerken wordt veroorzaakt door modernisering. Kortom, modernisering is de motor van waardenverandering, maar de snelheid van het moderniseringsproces is waarschijnlijk afhankelijk van specifieke sociale instituties in een land.

### ***Conclusies***

Het doel van dit proefschrift was tweeledig: Allereerst het achterhalen waarom individuele fertiliteitsnormen verschillen en in hoeverre deze normen het vruchtbaarheidsgedrag beïnvloeden. Ten tweede een inzicht krijgen in waarom fertiliteitsnormen verschillen door de tijd heen en tussen landen. Deze paragraaf eindigt met het toelichten van de wetenschappelijke bijdrage van dit proefschrift.

Dit proefschrift laat zien dat demografisch gedrag niet alleen het resultaat is van de (harde) socio-economisch kenmerken en situatie, maar dat de normatieve omgeving van mensen ook meespeelt. Het micro-level gedeelte van het boek heeft bijvoorbeeld laten zien dat fertiliteitsnormen er toe doen, omdat ze niet alleen op een directe manier het vruchtbaarheidsgedrag bepalen, maar ook andere socio-

demografische predictoren van demografisch gedrag medeëren. Bovendien beïnvloeden normen niet alleen het gedrag, maar worden normen ook bepaald door vertoond gedrag.

Een ander vernieuwend aspect van dit proefschrift is dat er meerdere verschillende contexten, waarin fertiliteitsnormen worden gevormd, zijn bestudeerd. Zo heeft het multi-actor karakter van de NKPS data het mogelijk gemaakt de werkelijke similariteit van fertiliteitsnormen binnen het familie-netwerk te bestuderen in plaats van de ervaren consensus. Verder is er, voor zover wij weten, niet eerder onderzoek gedaan naar de lange-termijn verandering van de publieke acceptatie van vrijwillige kinderloosheid in Nederland. Het macro-level gedeelte van het boek toont aan dat de landscontext een sterke stempel drukt op het veranderende normatieve klimaat van een land.

Dit proefschrift heeft niet alleen interessante resultaten opgeleverd, het heeft ook geleid tot nieuwe vragen die in toekomstig onderzoek aandacht verdienen. De belangrijkste suggestie voor toekomstig onderzoek heeft betrekking op veranderende samenlevingsvormen. In Nederland kunnen kinderen tegenwoordig opgroeien in een huishouden met alleen een vader of een moeder of twee vaders of twee moeders. Daarnaast zorgen nieuwe biomedische technieken als het invriezen van eicellen ervoor dat vrouwen moeder kunnen worden zonder partner. Wellicht is er in tolerante landen meer weerstand tegen dergelijke ontwikkelingen op het gebied van gezinsvorming dan verwacht. Gezien dit proefschrift heeft aangetoond dat normen niet verdwijnen maar veranderen, is het relevant de normen met betrekking tot relatief nieuwe samenlevingsvormen te bestuderen.

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Suzanne Noordhuizen,

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## ***CURRICULUM VITAE***

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