Social capital and pressure in fertility decision-making: second and third births in France, Germany and Bulgaria

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Abstract

This paper investigates the importance of an individual's web of informal relationships with a partner, family and peers on the intention to have a second or third child. Drawing from sociological theory of social capital and social pressure, we extend existing research by providing an innovative measure of social capital. By adopting a cross-national approach (France, Germany and Bulgaria), we are also able to separate how the impact of personal networks is related to institutional circumstances. Using GGS data, we engage in logit models for both men and women to examine how pressure from family and friends and two fertility-relevant social capital resources: (i) help with childcare and (ii) emotional support, influence fertility intentions. Results show that the impact of personal networks is stronger in less family-supportive institutional contexts. Differences in the way social pressure and capital affect fertility intentions largely explain the variation in fertility intentions across the three countries.

Keywords: fertility intentions, second and third birth, personal network, social capital, social pressure, cross-national analysis

Introduction

Previous fertility research has focussed on ideological change and cultural factors (van de Kaa, 1987), human development level (Myrskylä, Kohler & Billari, 2009), work-family incompatibility (Brewster & Rindfuss, 2000), gender inequality (McDonald, 2000a; 2000b; 2006; Mills & Begall 2010), intergenerational transmission of fertility values (Steenhof & Liefbroer, 2008), economic uncertainty (Mills & Blossfeld, 2005) and the inability to meet fertility intentions (Quesnel-Vallée & Morgan, 2003). The existing literature offers key insights into how societal-level policies, institutional context and individual characteristics shape fertility (Rindfuss et al., 2003). There is a central shortcoming of existing research, however, in that it generally adopts a binary examination of either large-scale macro-influences (institutions, culture) and/or the micro-level of individuals, their partners and core family members (parents, siblings). Although both levels of analysis remain central, the majority of research has overlooked the *intermediate context* of personal social networks (for exceptions see for e.g., Kohler, 2001; Kohler, Behrman & Watkins 2001; Bernardi, Keim, & von der Lippe, 2007).

Personal networks are the comprehensive web of informal relationships an individual has with relatives and peers (McCarty, 2002), which by definition extends the analyses beyond examination of only the influence of the partner and core family members. In recent years, fertility research has increasingly acknowledged the urgency to study personal networks, with two largely independent bodies of research emerging that have in turn identified two different roles of the network. In demographic research, a personal network has been identified as the place where social interaction occurs and individuals engage in communication of expectations and are influenced by social norms (Kohler,

2001; Bernardi, 2003; Lubbers, Molina & McCarty, 2007). Within the sociological literature, it is said to serve as a source of social capital, in the form of being a provider of emotional and material aid and assistance (Flap & Völker, 2004; Lin et al., 2001; Mandemakers & Dykstra, 2008).

Both streams of research that examine fertility questions have devoted little attention to Western countries, with the majority of demographic research focusing on the non-Western context (Kohler, 2001; Kohler et al. 2001). The only fertility studies concerning Western countries that have adopted a wider personal network approach by also looking at the role of peers (e.g., co-workers and friends), are small-scale qualitative studies (Bernardi 2003; Bernardi, Keim & von der Lippe, 2007; Keim, Klarner & Bernardi, 2009) of generally highly selective populations, making it difficult to draw broader generalizations.

This paper offers a unique contribution by extending existing fertility research and the role of personal networks on fertility in several ways. First, we adopt an explicit network perspective, instead of considering only specific family relationships (e.g., parents, siblings). By virtue of this, we are able to demonstrate the relevance of the entire web of an individual's personal relationships as a structure that provides constraints and opportunities for individual action (Wasserman and Faust, 1999). In order to gain a comprehensive picture of the role of personal networks in fertility, we bring together two existing yet largely parallel bodies of research, by looking at personal network as a source of social capital and social pressure. To date, the only study that considers both aspects is Bühler & Fratzack (2007), who examine the case of Poland only. By integrating recent

sociological insights, this study not only includes both social capital and pressure, but also introduces an innovative way to operationalize and measure social capital.

Second, we use a quantitative approach and a large-scale cross-national survey (i.e., Generations and Gender Survey), allowing us to make inferences on the role of personal network on fertility. Building on the findings of existing qualitative research (e.g., Bernardi, 2003), we take the examination beyond the mere descriptive level and are able to reach a higher degree of generalization.

Third, this paper adopts a cross-national approach to gain greater insight into more universal mechanisms of how personal network affects fertility and how this might be influenced or filtered by differing macro-level contexts. By comparing countries from Western (France, Germany) and Eastern Europe (Bulgaria), we enrich existing literature that lacks any cross-national quantitative comparison in Western countries. To our knowledge, no cross-national comparative research has been carried out on this topic to date. This study extends our knowledge, since personal networks have only been studied in relation to individual factors. For instance, social capital studies examine an individual's economic resources as a crucial determinant of fertility decisions, with little attention to the role of institutions (Schoen et al., 1997; Buhler and Philipov, 2005; Philipov et al., 2006).

By adopting this innovative cross-national design, we are able to examine the role of social capital and pressure on fertility decision-making in relation to the institutional setting. National institutions shape the levels of support that individuals require from the state, market or family, often referred to as the welfare regime (Esping-Andersen, 1990). Institutional regimes operate as a 'filter' or buffer to either shield or expose individuals

against economic insecurity and housing conditions (Mills & Blossfeld, 2005). Given that institutional regimes differ markedly between countries, we are likely to observe very different relationships between personal networks and fertility. These regimes shape the role and necessity of an individual's personal network (by increasing or decreasing the need for support), which in turn shape fertility behavior.

Finally, while there has been considerable attention to childlessness and the transition to first birth (Houseknecht, 1978; Toulemon, 1996; Keizer et al., 2008, Baizàn et al., 2003), literature specifically devoted to the factors associated with second and higher-order birth exists, but remains limited. This paper therefore contributes to an understudied area of fertility research and sheds further light on the specific determinants of the intentions to have a second and third child.

Theoretical framework

Second- and third birth fertility intentions

In the demographic literature, fertility is often investigated by studying both intentions and behaviour (i.e., having a child). Research that focuses on fertility intentions (e.g., Philipov et al., 2006; Billari et al., 2009) usually draws upon the theory of planned behaviour, where fertility is considered as a purposive behaviour (TPB, Ajzen 1991). This theory states that intentions are the result of the combination of three antecedents: (i) attitudes towards the behaviour in question (i.e., perceived cost and benefits); (ii) subjective norms about the behaviour (e.g., influence of close friends and relatives); and, (iii) perceived control over the behaviour (i.e., the extent to which the behaviour is perceived to be subject to control). By assuming that the intention to perform a specific

behaviour is the proximate antecedent of the behaviour, this theory claims that factors which have an impact on intentions will also have an impact on behaviour. As Figure 1 illustrates for France, Germany and Bulgaria, there has, however, been a systematic mismatch between intended and actual fertility. For this reason, a body of research has been devoted to investigate the causes of such a discrepancy (e.g., Quesnel-Vallée and Morgan, 2003; Testa and Toulemon, 2006).

FIGURE 1

Since couples in many Western societies practice almost 'perfect-contraception', besides infecundity, many factors have been shown to affect the gap between fertility intentions and their subsequent realization (or non-realization). Some have underlined the role of demographic factors, such as age and parity (e.g., Quesnel-Vallée and Morgan, 2003; Testa and Toulemon, 2006). Others have pointed to the importance of structural socio-economic factors, such as education or employment status (e.g., Toulemon and Testa, 2005).

Our focus on fertility intentions rather than behaviour is supported by two arguments. First, although we acknowledge that intentions can be revised due to changing constraints, following the theory of planned behaviour, we believe that studying fertility intentions can shed light on the driving forces behind fertility decisions. Second, fertility intentions are a valid and useful instrument to overcome the lack of a cross-national panel design, in which personal network effects are observed before the actual fertility behaviour.

Instead of assuming that people reason backwards from specific desired outcomes, as most of rational choice models of childbearing do, we embrace the theoretical framework

of reference dependence (Tversky and Kahneman, 1974; 1981). This approach claims that individuals make choices based on a reference point, usually the status quo. If the status quo changes, the value attached to an outcome can also change, leading people to revise their previous intentions and make different choices. Following this theory, childbearing decisions can vary over time, according to changes in family structure and parity. Indeed, the value associated to the potentially irreversible decision to have a child might be different in relation to new perceived constraints and opportunities pertaining to a specific context. For this reason, we argue that fertility intentions have parity-specific determinants, that is, the weight associated to factors that affect intentions to have a first child is different from the one that influence intentions to have a second child and so on. By investigating parity-progression determinants of fertility intentions, we shed light on which factors facilitate or inhibit to have a(nother) child at each parity, and thereby gain insight into how overall fertility desires are rarely realized.

We specifically focus on second and third birth fertility intentions for several reasons. First, specific research about the determinants of having a second or third birth is limited, particularly compared to the numerous studies of the transition to parenthood (e.g., Baizàn et al., 2003; Mills & Blossfeld, 2005; Rindfuss & Brauner-Otto, 2008). Of those studies that do exist, they generally focus on socio-economic factors, such as education (Kreyenfeld & Zabel, 2005; Gerster et al., 2007), or gender inequality (Olah, 2003; Torr & Short, 2004; Mills & Begall, 2010), entirely overlooking the role of personal network.

Second, by investigating the determinants of second and third birth we gain insight into the causes of the polarization of fertility in Europe. It appears that individuals polarize toward either childlessness (especially in German-speaking countries) or to

relatively high fertility. In order to disentangle the conditions that enable or constrain individuals to have more children, we need to go beyond transition to parenthood studies and gain knowledge into higher-birth determinants as well. We stop our analysis at third birth, which is still relatively common in Europe, since the group of people who have even more children is very rare and highly selective (e.g., highly religious, non-working women). The final reason that we focus on parity 1 and 2 (i.e., transition to second and third child) is that we are interested in studying the impact of social pressure and capital on people who have already experienced a birth, its consequences and how their network can react. The presence of a child allows them to be aware of what they can or cannot gain from their network. Moreover, since the first child can be quite normative in contemporary societies (Rindfuss et al., 1988), we would like to uncover if normative pressure can still be found also in higher-order births.

This approach calls for the examination of short-term intentions (i.e., within 3 years), which is known to be more accurate than long-term intentions (Philipov, 2009), since individuals are more capable of predicting their life situation within a shorter period of time. This paper also adopts a two-sex model of examining both sexes and the partner's role. Existing fertility research has traditionally focused on women only and lacks attention to men's and couple's fertility decisions. Our approach embraces the fact that there are gender differences in the impact of personal networks on fertility and that partner's role as well as characteristics are crucial in fertility decision-making. Considering the lack of research on gender differences in the network-fertility relationship, we adopt an exploratory approach, by separately analyzing men and women and do therefore not formulate gender-specific hypotheses.

Social pressure and social capital

Demographic literature that investigates the role of personal networks in fertility relies on the assumption that fertility intentions are not made in a vacuum but influenced by networks in which they are embedded. This impact can be examined in the form of social pressure and social capital.

Social pressure

As mentioned previously, literature on this topic is largely divided into two different and largely parallel streams. One body of research focuses on social interaction processes and communication networks (Bongaarts & Watkins, 1996; Kohler, 2001; Kohler et al. 2001). These studies predominately analyze the diffusion of contraceptive methods in developing countries (Kohler et al., 2001) and the processes of social learning (how individuals gain knowledge from others) and social influence (how consensus in peer groups constrains attitudes and behaviour) (Montgomery & Casterline, 1993; Kohler et al., 2001). Although the majority of the demographic literature is inspired by the second demographic transition theory (Lesthaeghe & Van de Kaa, 196) and thereby claims that social pressure on childbearing choice is disappearing, there are studies which demonstrate that social pressure may also play a role in developed, low fertility contexts (e.g., Rindfuss et al., 1988; Montgomery & Casterline, 1996).

Focusing on Europe, qualitative research (Bernardi, 2003; Keim et al., 2009) has studied channels and mechanisms through which social influences affect reproductive behaviour. Moreover, Billari, Philipov and Testa (2009) have linked the theory of planned behavior (TPB) to social network theories of fertility, showing how behavioural

theories that explain fertility decision-making can be integrated into a quantitative network-approach. Using Bulgarian data, they demonstrate that social pressure from those within the closest network can be used to measure Ajzen's (1991) concept of subjective norms. Finally, Liefbroer and Billari (2009) demonstrate the important role that social pressure plays on the timing, sequencing and quantum of fertility in the Netherlands.

Following Bernardi (2003), we define social pressure as the perception of what is approved or disapproved by relevant others. This perception brings about an individual's evaluation of the social costs and benefits associated to the others' opinions. Since social pressure can be detected within an individual's network of relevant others, we take into account opinions from parents, relatives and friends. The partner is not included because we assume he/she is already actively involved in the fertility decision-making. This discussion leads us to our first general hypothesis *(H1): the more social pressure that is exerted on an individual to have another child, the higher the likelihood is that she/he has positive fertility intentions to have an additional child.*

Social capital

Another body of fertility research, largely inspired by sociological theory, refers to the concept of social capital (e.g., Philipov et al., 2006). From sociological research on diverse topics, we know that the social capital of individuals consists of resources they have access to through their personal relationships. Social capital can include goods, as well as information, money, capacity to work, influence, power or active help (Bourdieu, 1986; Coleman, 1988; Granovetter, 1973). Building on these sociological studies

(Bourdieu, 1986; Granovetter, 1973; Flap & Völker, 2004; Lin et al. 2001), that show how social capital, next to economic and cultural resources, is instrumental in achieving an individual's goals, recent demographic research demonstrates that social capital is an important factor in fertility decisions (e.g., Schoen et al., 1997, Bühler & Philipov, 2005; Philipov et al., 2006).

Studies on social capital expand the examination of the economic context as a crucial determinant of fertility decisions for an individual or a household. They do so by including informal economic activities and supportive relationships as strategies for coping with economic circumstances in relation to fertility (e.g., assistance in childcare). All of these studies focus on ex-communist Eastern European countries, where, being contexts characterized by a high level of economic uncertainty, supportive resources have been found to be crucial. Philipov et al. (2006) discuss the role of social capital in fertility intentions referring to Bulgarian and Hungarian women. Philipov (2002) and Philipov and Shkolnikov (2001) also carry out the same analysis for Russia, while Bühler and Fratzcak (2007) focus on Polish men and women. Moreover, Bühler and Philipov (2005) provide an extensive theoretical discussion on social capital related to social networks and how it affects the formation of fertility intentions in low fertility contexts. According to this framework, we assume positive effects of supportive social relationships on fertility intentions.

As suggested by Snijders (1999), when investigating the role of social capital relative to a specific goal, we need to refer to resources that are instrumental to reach that goal, more than to the social tie that generates it. This also applies to fertility decision-making. For this reason, also inspired by social support research (Van Busschbach, 1996), we

focus on two well-established fertility-relevant resources: informal childcare support (Hank & Kreyenfeld, 2003) and emotional support (Bühler & Philipov, 2005).

Since social capital is a multidimensional and complex concept, its measurement has been problematic and is highly debated. The prominent operationalization of social capital in fertility research (Buhler & Philipov, 2005; Buhler & Fratczak, 2005) has simply looked at the *size* of networks (i.e., the number of providers of a certain resource). The underlying assumption of this approach is that returns are proportional to the greater numbers of alters (i.e., providers). Moreover, extra providers of the same resource could be seen as an 'insurance' for a certain kind of help, for example in circumstances when the main provider is not available. Outside of fertility research in demography, however, this definition is highly disputed.

Recent network studies have criticized this way of measuring social capital (Finsveen & Van Oorschot, 2008). Van der Gaag (2005) has likewise pointed out that the assumption of proportional returns to greater numbers of alters (i.e., providers) does not apply to many goals, since help from multiple persons can be unnecessary. Snijders (1999) has claimed that in the effect of social capital there is a very important difference between having one alter giving access to a certain resources and no alter at all; much less between one or more alters providing the same resources. Finally, Borgatti et al. (1998) show that extra providers can be even inconvenient, since it can raise coordination problems and, due to the fact that social capital is based on reciprocal exchange, more obligations (diminishing returns). We therefore operationalize social capital in way that it is possible to test two possible alternatives to the null hypothesis of no effect of social capital on fertility intentions:

H2a) the higher the number of providers of each relevant resource within an individual's personal network, the higher the likelihood to intend to have another child is for that individual

H2b) social capital has a curvilinear effect on the likelihood to intend to have a child: the presence of only one provider for each relevant resource within an individual's personal network leads to the highest likelihood to intend to have a child for that individual

General definitions of social capital refer to resources individuals are already exploiting as well as resources they potentially have access to when needed (e.g., Bühler and Philipov, 2005). However, we consciously take into account only the former aspect. This paper focuses on people who have already children (one or two), and thus experienced how and to what extent personal network can offer support relevant to childbearing and childrearing. Using reference dependence theory (Tversky and Kahneman, 1974 and 1981), we assume that people evaluate choices related to the status quo and are therefore likely to make decisions based on what they have just experienced. Since these people have already experienced parenthood, they are likely to look at the support received as a reference for possible upcoming childbearing experience. It is definitely more unlikely that they base their fertility decisions on potential new possible social ties they might exploit. Acknowledging the reciprocal nature of social capital exchange (van der Gaag, 2005), we believe that including both received and given support (as Bühler & Philipov (2005) have done) is redundant. Indeed, Billari et al. (2009) demonstrated that the two measures are highly correlated. For this reason, if the

amount of resources exchanged in one direction is equal to the one in the opposite direction, we only consider received support.

Following the same reasoning we used for social pressure, the partner is not included among the resource providers. Since the partner holds a primary position in fertility decision-making, this support needs to be evaluated separately. McDonald (2000a; 2000b; 2006) has theorized that in contexts of increasing gender equity in individual-oriented institutions (e.g., increasing female participation in the labour market) greater gender equality within family-oriented institutions (e.g., equal involvement of the two partners in household duties) would raise fertility. Several empirical studies have also shown the positive effect of higher gender equity within the family on fertility (e.g., Torr & Short, 2004, for the U.S., Mills et al., 2008, for Italy and The Netherlands). Following previous gender equity research, we formulate our third hypothesis *H3: the higher the amount of partner support with household tasks, the higher the likelihood that women will intend to have another child.*

Divergent Institutional Settings

The central shortcoming of existing research is that cross-cultural and cross-national variations have not been taken into account. The importance of such an approach is, however, starting to be acknowledged. Indeed, several of the above-mentioned studies (Billari et al., 2009; Liefbroer and Billari, 2009; Keim et al., 2009) explicitly state the need to adopt a comparative perspective, in order to investigate whether cultural and institutional factors influence the personal network-fertility relationship (macro-meso-micro interactions). This paper aims to fill in this gap, by comparing three different

European countries. In order to interpret the results and understand the relationship between social pressure and capital with fertility, it is essential to understand the difference in economic, demographic, family policy and gender systems in France, Germany and Bulgaria.

Economic and demographic differences

As Table 1 illustrates, France and Germany both have a high Gross Domestic Product (GDP) per capita, whereas Bulgaria shows lower living standards. If we compare the official total and female unemployment rates, we see that Bulgarian conditions are similar to France, while Germany has higher unemployment rates, largely attributed to levels in the former East Germany. Bulgarian labour market's features have a legacy from communism, where there was virtually full-employment and female employment was ideologically supported.

The main fertility-related demographic features are also shown in Table 1 and previously in Figure 1. Germany and Bulgaria share a very low fertility rate. Their total fertility rates in 2005 (relevant for our analyses) were 1.3 children per woman in both countries (Figure 1[1]). Low fertility has been a long-term trend in Germany (Dorbritz, 2008) and a more recent phenomenon in Bulgaria, where the sharp fertility decline began at the end of the 1980's, with the collapse of the Soviet Union. France is instead characterized by having one of the highest fertility rates in Europe (1.94 in 2005, and is now is over 2). Moreover, while France has a comparatively level of third births Germany is one of the countries where the rate of childless is one of the highest in the

[1] Figure 1 shows data of 2006 in order to compare intended and actual fertility and data about desired fertility come from the Eurobarometer Survey that was carried out in 2006.

world (Köppen, 2006). France and Germany share a relatively late and increasing age at first birth (28.5 and 29.6 respectively). This age is lower in Bulgaria (24.8), even though there has been a significant postponement since the beginning of the 1990's.

TABLE 1

French family policy and gender system

The differences in family policy across the three countries are remarkable and summarized in Table 2. French family policy stems from a strong pro-natalist tradition. The central features are the interrelated characteristics of strong childcare support, increasing labour market participation of women, defamilization, and the rise of dual-earner families. Childcare support is a priority on the political agenda with collective and private care arrangements developed for children under three, helping women to reconcile family and work (Toulemon et al., 2008). Care is available when maternity leave ends (i.e., from the age of two or three months), with extensive opening hours. Although the family policy reform of 1994 seemed to provide incentives for women to leave the labour force (due to an increase in childcare allowances), French family policy has always aimed at facilitating the work-family reconciliation, by offering, besides good parental leave allowances, generous childcare facilities for parents. This favourable context has promoted relatively high and stable fertility as well as an increasing women's participation in the labor market (OECD, 2005) and has brought about a shift towards dual-earner families (for an extensive description of the French family policy see Letablier, 2003 and Toulemon et al., 2008).

France is a defamilialized context, which refers to "the degree to which households' welfare and caring responsibilities are relaxed either via welfare or market provision"

(Esping-Andersen, 1999). The state stands in for families, with the aim of social equity as well as encouraging fertility (Rosental, 2003). Although motherhood is still associated with withdrawal from the labour market for some groups of women (Anxo et al., 2007; Pailhé and Solaz, 2006), the level of female paid employment is high also for women with children (Toulemon et al., 2008). In contemporary France, working mothers of young children are socially accepted, both by individuals and by firms, whereas the housewife model (male breadwinner) has become socially discredited (Eurostat, 2006). The gender division of domestic tasks is more equal than in most of the other European countries, suggesting relatively high gender equality (Eurostat, 2006).

German family policy and gender system

Germany is characterized by a familialistic childcare system, inadequate public childcare and a gender system of a male breadwinner model and traditional family role set. Childcare responsibilities mainly rest on parents, while the state provides them with a support scheme, based on long-term parental leave and allowances. Private childcare is scarce and public childcare is often inadequate, both in terms of quality and quantity (for instance, public childcare for children under the age of 3 is rarely available) (for details about German childcare policy, see Hank & Kreyenfeld, 2003). Women are therefore largely forced to choose between family and work, and withdraw from the labour market when a child is born (Dorbritz, 2008).

In Germany, mothers are often confronted with strong normative expectations that prevent them from using out-of-home care, particularly for children of younger ages. The traditional male breadwinner model has been promoted by German family policy and is

intrinsic throughout all institutions, such as the tax system. The model of female homemaker is still very popular, especially in the West, and the role-sets within the couple are quite traditional, especially when there are children in the household (Grunow et al., 2007). As a consequence, the dual-earner model is common only for childless couples, whereas women with children are more often economically inactive or work part-time. More recently, there has been a shift to a defamilized model. A childcare reform was introduced in 2006, which provides subsidized day care for all children under three years if both parents are working (Haan & Wrohlich, 2009). These changes, however, are beyond the period of analysis in this paper.

Bulgarian family policy and gender system

Bulgaria is characterized as a nation that has moved from defamilization to familialism, an abrupt end to a generous socialist social care system and a gender system with a long legacy of dual-earners but still a very traditional and unequal gender role set. In the exact opposite trend to Germany, Bulgaria was a defamilialized country that has now moved towards familialism, due to the incapacity of the state to continue to shoulder caring responsibilities for the family (for a detailed overview see Kovacheva & Pancheva, 2003; Todorova, 2000; Zhekova & Kotseva, 2005). As a communist country, Bulgaria was characterized, until 1989, by a pro-natalist policy, with the goal to maintain moderate population growth. However, public expenditure on the family was severely cut back during the transition period. During communism, family policy aimed at integrating mothers into the labour market with widespread childcare. After the change of political regime, the number of places in kindergartens and crèches decreased (Kovacheva &

Pancheva 2003), with most of the benefits introduced by the pro-natalist policy remaining intact (e.g., child allowance and birth payments). They have, however, lost their real value as they have not been indexed on inflation nor taken account increases in the costs of childbearing (Koytcheva and Philipov, 2008). In 2002, child allowances were updated, but remained very low (around 9 Euros per month). During maternity leave, mothers are paid the equivalent of the national minimal wage, which is very low (in 2004 60 Euros per month, Zhekova & Kotzeva 2005).

The full-time dual-earner household was the norm during communism, and it is still the predominant model in contemporary Bulgaria, even though women's participation rate has been steadily decreasing since 1989. The part-time dual-earner model is becoming more common, and 19% of households have a female breadwinner model. This is not, however, a signal of women's emancipation; rather, in contemporary Bulgaria, women's participation rate is a response to economic imperatives (especially if men are unemployed). In dual-earner families, men are considered as primary breadwinners and women as second earners. Gender egalitarian ideologies have not penetrated Bulgarian society, with a very traditional division of labour in the home co-exists with the strong full-time presence of women in the labour market (Wallace et al., 2006). The role of the extended family is therefore crucial in helping working women with household chores and childcare activities.

TABLE 2

Divergent institutional conditions, social pressure and capital and fertility intentions

As Esping-Anderson (1999) and Brewster and Rindfuss (2000) have remarked, the relationship between defamilialization (i.e., a state's willingness and ability to take over

the responsibilities traditionally typical of the family) and fertility is increasingly positive and supported by the now positive relationship between female employment and fertility. However, other non defamilialized contexts (e.g., a liberal regime such as the United States) have a near-replacement fertility. According to McDonald argument (2000a), this can be explained by the fact that family-related institutions have adapted more rapidly to the gender equity model.

Defamilialization and gender equity has been found as triggers of cross-national fertility variations. We aim to extend this macro-micro approach, by also including the 'meso' personal network level, that is, by investigating how defamilialization and gender equity shape the personal networks-individual fertility relationship. Indeed, we assume that an individual's need for others' help is directly influenced by the availability of institutional solutions. We also envision that the extent to which family, relatives and peers put pressure on an individual's fertility decisions is different according to the role that they are called to perform by the state.

A familialistic context is a context where "public policy assumes that households must carry the principal responsibility for their members' welfare" (Esping-Andersen, 1999). We expect that familialism implies higher involvement of the personal network. Indeed, individuals in each household are likely to be unable to independently carry the burden all the responsibilities, due to size or lack of resources. Individuals from certain households may therefore demand resources and support from close networks (i.e., relatives and peers). Moreover, we also assume that, in a familialistic context, since individuals heavily rely on support from the family, and likely the personal network, they are more likely to be exposed and subject to other's opinions and pressure. Based on this

argumentation, we formulate the following hypotheses, which are the corresponding comparative version of the first two hypotheses:

H4) in a familialistic context (i.e., Germany and Bulgaria), the role of social pressure on intentions to have a second and third child is stronger than in a defamiliarized one (i.e., France).

H5) an effective and defamilialized family policy (i.e., France) leads to a lower need for informal support, whereas scarce support from the state and familialism increase the importance of social capital on and individual's intentions to have a second or third child (i.e., Germany and Bulgaria).

Concerning gender equity, we have already mentioned the importance we assign to the partner (H3). Following McDonald (2000a; 2000b), we envision that where individual-oriented institutions (such as labor market) are no longer only male institutions, and, at the same time, the state's support is scarce, gender equity within the family is even more important to promote fertility. Therefore our last hypothesis states:

H6) *in contexts where the dominant model is the dual-earner family and family policy is unsupportive (i.e., Bulgaria), greater support with household tasks from the male partner will encourage positive fertility intentions for women.*

Data and Method

Data and sample

In our analysis, we use data from the Wave 1 of the Generations and Gender Survey (GGS), carried out in Bulgaria (2004), France and Germany (both 2005). The GGS is a cross-national, large-scale survey for European and some non-European countries. The

GGS is designed to be a panel survey of a nationally representative sample of men and women, aged 18-79 years-old and resident in each participating country, with wave 1 currently available. Besides providing individual and household-level data, the GGS also collects information about a respondent's personal network, both in terms of social pressure and social capital. Due to the scale of the survey, name generators could not be used. However, the GGS partially overcomes this shortcoming by adopting a resource-oriented approach (i.e., by asking questions on who provides specific resources/support relevant for each life domains), and by using a list of providers and receives, in which respondents indicate who and how many people provide them with that resource. The GGS is the only survey so far available that offers personal network, cross-national comparable data. Data is also collected from a couple perspective so that respondents provide a large amount of information also about their partners.

Our sub-sample includes women and men in their reproductive span, aged 18-45, with a co-resident partner, one or two children (with the youngest not older than 14), being fertile and not expecting. We focus on this specific sub-sample in order to have the most realistic fertility intentions possible. We ran separate analyses for men (N=1504) and women (N=2255) which is broken down by country for France (N=552 women; N=452 men), Germany (N=536 women; N=332 men) and Bulgaria (N=1167 women; N=720 men).

Measurement of variables

Fertility intentions. The dependent variable is the likelihood to intend to have a second or third child within three years. The question is as follows: "*Do you intend to have another*

child during the next three years?" Four possible answers are: "*Definitely Yes, Probably Yes, Probably No, Definitely No*". We collapse the first two answers in one positive response, and the latter two in one negative response, resulting in a dichotomous variable. (Preliminary analyses using an ordered logit model did not produce considerably different results, leaving a binary logit model as a more efficient choice for interpretation of the results.)

Social pressure. Social pressure is measured by looking at how the respondent perceives others' opinions about how she/he should behave. Specifically, we measure to what extent the respondent feels social pressure to have a child from parents, relatives and friends, using three items: *"Most of your friends think you should have another child", "Your parents think that you should have another child", "Most of your relatives think you should have anther child"*. Answers range from *strongly agree* to *strongly disagree.* We use a continuous centered variable, summing up the three scales (Cronbach's alpha = 0.934)

Partner's support. The support received from the partner is measured by the couple's division of housework. We use four items to describe different household chores (preparing daily meals, doing dishes, shopping for food, vacuuming). Even though we are aware that these four activities are mainly female tasks, we choose them because they are generally activities that are at fixed times during the day. Therefore, looking at these tasks allows us to measure the usual and everyday commitment of each partner. For each of the item, respondents were asked to indicate who performs which task (i.e., always respondent, usually respondent, respondent and partner equally, usually partner, always partner). We then give a score for each level of involvement and we sum the score for all

considered activities. (Cronbach's alpha=0.867) into a continuous centered index, which increases when the partner's participation in household tasks increases.

Social capital. Social capital is operationalized by identifying and measuring two resources relevant for fertility-related decision-making: whether and from how many people the respondent has been receiving (i) regular help with childcare (*Do you (also) get regular help with childcare from relatives or friends or other people for whom caring for children is not a job? From whom do you get this help?*), and (ii) emotional support (*Over the last 12 months, have you talked to anyone about your personal experiences and feelings? Whom have you talked to?*). Each respondent can indicate up to five people from a list of providers and receivers. Even though there are slight differences among countries regarding the listed types of providers, the list mainly includes partner, relatives, friends and acquaintances. In order to test if social capital has either a curvilinear or an increasing positive effect on fertility intentions (hypothesis 2), we create 3 categories representing respectively no support at all (no provider), support from only one provider (if the respondent indicates only one person), and support from more than one provider (from 2 to 5 providers). Since we are evaluating the effect of the partner's support separately, we exclude him/her from this measurement.

Control variables. In order to avoid a spurious association between our explanatory variables of interest and fertility intentions, we control for several socio-demographic characteristics of the respondent, as well as the partner. Indeed, by assuming that fertility decision-making is a couple process, we believe that spouse's characteristics play an important role. Qualitative research into intentions, for instance, has shown that

individuals integrate their partner's position in the formulation of their intentions (Bernardi et al., 2007).

We control for the age of the respondent, divided in groups, given the non-linear relationship between age and fertility; number of children of the respondent (one or two, biological or adopted), and age of the youngest child. Controlling for the number of children allows us to distinguish between intentions to have a second or third child. We envision that individuals with only one child, and especially a young one, are more likely to intend to have another child.

We use two dummy variables to control for the employment status of the respondent and his/her partner (i.e., value 1 if employed, 0 if unemployed). We also control for the achieved educational level of both members of the couple separately, since these two variables not highly correlated into three levels, those who have only: finished primary school, a secondary education and a higher education.

Finally, we control for the partnership status of the couple (i.e., married or cohabiting), and for the household economic situation. The latter is measured with a continuous (centered) variable that considers the respondent's subjective assessment of household income as an answer to the question: "*A household may have different sources of income and more than one household member may contribute to it. Thinking of your household's total monthly income, is your household able to make ends meet …"* (answers from *1 "with great difficulty" to 6 "very easily").*

Analytical strategy

Our analyses are based on binary logit models on the probability to intend to have another child within three years. In order to explore gender differences in the personal network-fertility relationship, we estimate models separately for men and women.

First, we pool the three countries together in a logistic regression, where we include country-dummies to control for the among-country variation (Model 1 and 3, women and men respectively). In doing so, we can test our general hypotheses (H1, H2, H3) on the role of personal network in fertility intentions, disregarding differences among countries.

In a second step, we include in interactions in the model between our variable of interests and country-dummies in order to test whether social pressure and social capital impact fertility intentions with a different intensity depending on the institutional context (H4, H5, H6). We opt for pooled logit models with interactions rather than analyzing the three countries separately, because in this way we can test whether possible country-differences are statistically significant.

We include in our models only those interaction terms that are statistically significant (Wald test) for at least one gender. Since we want to have comparable models for men and women, we include the same interaction terms for both genders, even when they are significant only for one sex. Since we include several interaction terms in our models, we have centered all the continuous variables to avoid multicollinearity problems.

Results

Results from the four models on fertility intentions are shown in Table 3, which reports the odds ratios of intentions to have a second or third child. Model 1 and 3 represent the

two basic models with main effects and country dummies for women and men respectively with Models 2 and 4 showing the interaction terms. The descriptive statistics for all variables is shown in an Appendix (see Appendix, Table A1).

Women and men are more likely to intend to have another child within three years when they are between 25 and 30 year-old. However, while this probability is already much lower for women over 36 years of age, for men this happens at a later age, when they reach their forties. Both men and women are less likely to have a third child than a second one, and also the age of the youngest child matters. The older this child is, the less likely people are to intend to have another one.

Regardless their gender, individuals are less likely to have another child in Germany and Bulgaria than in France. Already from the descriptive statistics (Table A1), we can see that the share of people who have positive fertility intentions in France is higher than in Germany and Bulgaria. Moreover, since the French sample is representative of the population, it includes more people with two children than the samples of the other two countries.

It is interesting to note that for women, greater perceived security does not lead to a higher probability of having a child, whereas a higher education of both members of the couple is associated with positive fertility intentions. On the other hand, for men the likelihood of having a child is higher the more positive their income assessment is, also found in previous studies (Mills, Klijzing & Blossfeld, 2005). Moreover for men only their own educational attainment is relevant, while the female partner's level of education does not have any effect. These findings seem to depict a rather traditional male breadwinner logic. Indeed, women seem to rely on the male partner's job position

(directly related to their educational level) as a source of the household's economic security. However, women's fertility intentions are less driven by pure economic reasons (not significant role of perceived security); rather women are likely more concerned about time constraints and work-family conflict. Indeed, higher educated women have a higher probability of having another child, likely because they tend to have more resources and skills to reduce work-family conflict, and have partners who contribute more to household chores and childcare (Koppen, 2006; Oláh 2003; Torr and Short 2004; Mills et al. 2008). Men instead likely base their fertility intentions on an evaluation of the household's economic situation, that they directly relate only on their own job (educational level).

TABLE 3

Respondent's perceived social pressure from parents, relatives and friends seems to play a strong positive role on the probability to intend to have a child, both for men and women. This result supports our first hypothesis and it is line with previous findings (e.g., Billari et al., 2009).

Concerning social capital, while informal childcare support does not seem to have any effect on fertility intentions, we do find a positive influence of emotional support from an individual's network on his/her fertility intentions. Specifically, we find some support for hypothesis 2a, with a higher number of providers of a certain resource (i.e., emotional support) leading to higher fertility intentions. This might be explained in terms of an insurance effect, according to which if one confidant is not available, the respondent can rely on others. However, another possible interpretation is that having several people with whom an individual can talk to about personal matters is symptomatic of a social

environment conducive to sharing and supporting children-related worries. It is indeed plausible that an individual who has children refers to his/her experience as a parent.

Model 1 does not seem to support the hypothesis 3. Greater support from the male partner in domestic activities does not lead to a significantly higher probability of having a child for women. This result seems to clash with previous empirical research on the role of gender equity within the couple (e.g., Mills et al., 2008). However, as McDonald (2000a; 2000b; 2006) has theorized, the effect of gender equity in the family is different in different institutional contexts. Therefore, this finding might be an artefact of the sum of different country-effects. Only interactions between this factor and country-dummies can provide us with a clear picture, which we turn to now.

In Model 2 and 4, we include the interactions between our explanatory variables and country-dummies in order to examine whether and how social pressure and social capital differently affect fertility intentions in the three countries.

Adding interaction terms does not change the effect of any control variables. However, the country-dummies for Bulgaria and Germany, (France is the reference category), lose part of their significance, and the Germany-dummy even becomes insignificant in the men's model. This means that variations in fertility intentions among the three countries can largely be explained by differences in the way social pressure and social capital affect fertility intentions.

The social pressure-country interaction is highly significant, with the main effect also remaining significant. When we examine women (Model 2), we see that the positive effect of higher social pressure on fertility intentions is stronger in Bulgaria than in France. For men, we also find a stronger effect in Germany, compared to France. As

shown in Figure 2, where we have plotted the interaction effect in terms of predicted probability, when the social pressure is higher, Bulgaria and Germany almost catch up with the French fertility intentions level. This finding supports hypothesis 4, showing that in defamilialized contexts, where all caring responsibilities rest on the family and personal network, individuals are more exposed to social pressure, opportunities and sanctioning power from people around them.

FIGURE 2

Our strategy is to include only those interaction terms that are significant for at least one gender. Therefore, since the interaction between emotional support and country do not significantly improve the model of men or women, we do not include them. This leads to the conclusion that, given the remaining positive main effect, there are no significant differences in the positive role of emotional support from the network on fertility intentions in the three countries.

The main effect for informal childcare support remains insignificant in both women's and men's models. While no specific differences are found for women in the three countries, results show that the impact of informal childcare support on fertility intentions for German men is very different from that in France and Bulgaria. Specifically, the childcare support from only one provider seems to play a significant positive role on German men's fertility intentions. Figure 3 shows that, in contrast with the other two countries, the fertility-childcare relationship in Germany has a clear inverse U-shaped pattern: the probability of intending to have a child is low when there is no support, goes up when the support comes from one person, and goes again down when several providers are involved. This phenomenon might be due to the fact that receiving help

from several people can result in coordination problems, which might in the end be perceived as a further constraint instead as supportive.

FIGURE 3

This still raises the question of why we find this effect for men and not women. Since 2000, Germany has been trying to move towards a family and welfare model that encourages the participation of mothers in the labor market. This process has culminated in the reform implemented in 2006. In this changing context, where the male breadwinner family model is no longer the sole or majority family model, and individual-oriented institutions (such as labor market) are no longer only male institutions (McDonald, 2000a), men have to rethink their role. More and more, they deal with the new role of "working father/family carer", and face the work-family conflict. Even though the primary burden is still on women's shoulders, men start struggling to adapt themselves to a completely new role. Therefore, they might feel the need of relying on informal childcare support as much as or even more than women.

Finally, the interaction between partner's support and country-dummies shows interesting results. If we focus on women, we do not find any significant effect for Germany, a negative effect in France, and a positive one in Bulgaria. While the latter finding was expected and also seems to support our last hypothesis (H6), the negative effect of the partner's support on fertility intentions in France is quite surprising. Our interpretation is that, in a context characterized by a rather modern and equal division of domestic tasks between the two partners, a too high involvement of the male partner in chores could be the symptom of a situation in which the female partner has difficulties in

caring for the family (for instance because of her career), and thereby does not want additional children.

The strong positive effect in Bulgaria is in line with what McDonald (2000a) theorized. Indeed, Bulgaria is a country where individual-oriented institutions (e.g., education system and labour market) are characterized by high gender equality, as a legacy from communism, and family-oriented institutions are instead very traditional and not equal for men and women. While this situation did not have consequences on fertility during communism because pro-natalist policies were implemented and a supportive social system was guaranteed, this has been changed since the transition. The cutback of public expenses has highlighted that higher gender inequality within the family discourages fertility. Conversely, a greater involvement of the male partner in domestic tasks was associated to a higher probability that women intend to have a child.

Concluding remarks

The goal of this study was twofold. First, we aimed to enrich the body of research on the impact of personal networks on fertility, and provide a contribution to fertility research literature by showing the importance of taking personal network's mechanisms into account. A second and primary goal was to demonstrate for the first time how differently these mechanisms affect fertility under diverse macro-institutional contextual conditions. We found that there appears to be no universal mechanism, but that the processes of social pressure and social capital are highly institutionally filtered.

We focused on second and third birth intentions in order to shed some light on the determinants of higher-order births, and because we are interested in studying people

with children, who thereby have already experienced their own personal network's reaction to parenthood.

Our empirical analysis provided support that social pressure and social capital affect fertility. Findings showed that the higher the social pressure from parents, relatives and friends, the higher the likelihood to have another child. We also found that and individual is more likely to have a child when they receives emotional support from several people, which was consistent for both genders.

This paper integrated sociological insights and new operationalization of social capital into fertility research. Drawing from the social network literature, we identified (and consequently operationalize) two possible ways in which social capital influences fertility. First, we found an increasing positive effect proportional to the number of providers of a certain resource, (insurance effect). Second, we tested a curvilinear pattern, according to which the availability of a resource from only one provider is associated to the highest probability of intending to have a child, with diminishing returns for a greater number of providers. Emotional support seems to follow the first mechanism.

Since existing research lacks a cross-national analysis of the role of personal networks in fertility, this paper aimed to close this gap, by comparing France, Germany and Bulgaria. We theorized that in a defamilialized context, such as France, social pressure and capital have a weaker effect, since most of the caring responsibilities rest on the state. Individuals are therefore less dependent on their personal network. Our findings support this hypothesis, showing that higher social pressure places a much more stronger role in Germany and Bulgaria. We can expect that negative pressure (i.e., when relevant people discourage individuals to have children), works in the same way. Therefore, in

familialized contexts negative pressure might be more effective than in defamilialized ones, leading to lower fertility.

We found a noteworthy effect of the impact of informal childcare support on German men's fertility intentions. While the effect is not significant for German women, men seem to have higher fertility intentions when they receive help with childcare from only one person. We do not find this positive effect when this support is provided from more than one person, likely because having more caregivers could raise coordination problems, which in turn discourage further childbearing.

While no country-differences were found in the positive effect of emotional support on fertility intentions, our analyses show that greater help from the male partner leads to women being more likely to intend to have a child only in Bulgaria, a country characterized by scarce public support with relatively high female labour market participation. Indeed, support from the partner is crucial in a situation where the woman holds a 'triple burden' (Mills et al., 2008), because she is a paid worker, housewife and primary carer for children (with no public support).

In interpreting the results of this study, it is important to keep in mind some limitations of our analyses. Finding quantitative data that are suitable to study personal network and fertility is very difficult (Rossier and Bernardi, 2009). That is due to the fact that this area of research is relatively new, and getting exhaustive information about an individual's network requires complex and time-consuming data collection. Our analyses are based on cross-sectional data, since there are no panel, cross-national data on this topic, and the GGS is the only survey that allows us to adopt a comparative perspective using personal network information. Although we assume a causal relationship between social pressure,

capital and fertility intentions, we cannot fully study it by using cross-sectional data. Therefore our analyses are subject to some endogeneity concerns. For instance, people who want to have another child could be more likely to perceive others as pressuring them to do so. As further waves of the GGS become available in upcoming years, future research could address our concerns using panel data.

Another interesting extension would be to include more countries and make use of a structured multilevel approach that allows us to take into account the nested sources of fertility's variability (e.g., country-level and individual-level variance), and also other statistical measures of the macro-context.

Given the crucial importance of an individual's personal network on fertility, we hope that new more complete network data will be collected. Fertility research would strongly benefit from a more comprehensive social network analysis, only possible with more specific network data. Indeed, in addition to a more accurate analysis of the network composition (e.g., availability of resources), a structural analysis would allow us to assess power and influence network positions, strong and weak ties and possible segmentations. Studying both compositional and structural aspects of the personal network can highlight further mechanisms through which fertility can be affected.

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Table 1. Key economic and demographic figures for France, Germany and Bulgaria

Country	*GDP per capita*[a]	*Unemployment rate*	*Female unemployment rate*	*Total fertility rate*	*Mean age at first birth*
France	29,693	8.9	9.8	1.3	28.5
Germany	31,366	11.1	10.7	1.3	29.6
Bulgaria	9,255	10.1	9.8	1.94	24.8

Source: UNECE Statistical Division Database, 2005

a: GDP per capita in US$, at prices and PPPs of 2005

Table 2. Main features of family policy and gender system in France, Germany and Bulgaria

Country	*Family policy*	*Gender system*
France	Defamilialization Almost universal public childcare	Dual-earner model More egalitarian family role-set
Germany	Familialism towards defamilialization Inadequate public childcare	Male breadwinner model Traditional family role-set
Bulgaria	From defamilialization towards familialism End of generous socialist social care system	Dual-earner model Very traditional and unequal family role-set

Table 3. Results of logit models on men's and women's fertility intentions

Variables	WOMEN		MEN	
	Model 1	Model 2	Model 3	Model 4
	Exp(B) (S.E.)			
Constant	0.964 (0.349)	0.723 (0.381)	0.543 (0.411)	0.605 (0.442)
Age group (ref: 31-35)				
18-24	1.351 (0.242)	1.360 (0.245)	0.843 (0.364)	0.751 (0.367)
25-30	1.413** (0.170)	1.395* (0.172)	1.599** (0.222)	1.634** (0.227)
36-40	0.350*** (0.226)	0.350*** (0.227)	0.756 (0.212)	0.774 (0.216)
41-45	0.203*** (0.408)	0.186*** (0.413)	0.313** (0.341)	0.337** (0.339)
Number of children 2 children (ref.: 1 child)	0.186*** (0.166)	0.180*** (0.169)	0.148*** (0.202)	0.153*** (0.206)
Age of the youngest child	0.884*** (0.023)	0.888*** (0.023)	0.832*** (0.028)	0.826*** (0.029)
Country (ref.: France)				
Bulgaria	0.225*** (0.199)	0.362** (0.313)	0.450*** (0.225)	0.333** (0.388)
Germany	0.351*** (0.215)	0.469** (0.346)	0.454** (0.261)	0.493 (0.469)
Perceived security	0.975 (0.066)	0.977 (0.066)	1.150* (0.077)	1.137* (0.078)
Partnership status cohabiting (ref.: married)	0.888 (0.177)	0.966 (0.178)	0.816 (0.213)	0.800 (0.214)
Employed	0.837 (0.160)	0.867 (0.162)	1.103 (0.260)	1.004 (0.267)
Partner's employed	1.129 (0.227)	1.034 (0.232)	1.370 (0.193)	1.373 (0.196)
Education (ref.: secondary)				
Primary education	1.301 (0.256)	1.270 (0.257)	1.234 (0.268)	1.204 (0.270)
Higher education	1.321* (0.164)	1.327* (0.165)	1.718** (0.218)	1.691** (0.220)

Partner's education (ref.: secondary)				
Primary education	0.792	0.839	1.166	1.064
	(0.241)	(0.240)	(0.271)	(0.272)
Higher education	1.573**	1.540**	0.977	0.968
	(0.170)	(0.173)	(0.208)	(0.210)
Social pressure	1.311***	1.231***	1.282***	1.165***
	(0.021)	(0.036)	(0.025)	(0.036)
Partner support	1.152	0.670**	0.973	0.965
	(0.116)	(0.184)	(0.134)	(0.195)
Emotional support (ref.: no emotional support)				
From 1 person	1.283	1.322*	1.194	1.240
	(0.168)	(0.170)	(0.206)	(0.210)
From more than 1 person	1.351*	1.378*	1.594**	1.576**
	(0.169)	(0.172)	(0.211)	(0.213)
Childcare support (ref.: no childcare support)				
From 1 person	0.889	0.930	0.902	0.682
	(0.175)	(0.342)	(0.208)	(0.345)
From more than 1 person	1.077	1.065	1.303	1.504
	(0.166)	(0.274)	(0.204)	(0.329)
Interaction terms				
Social pressure x country				
Social pressure x Bulgaria		1.125**		1.199**
		(0.049)		(0.055)
Social pressure x Germany		1.059		1.164**
		(0.053)		(0.066)
Partner support x country				
Partner support x Bulgaria		2.622***		1.052
		(0.241)		(0.274)
Partner support x Germany		1.246		0.757
		(0.449)		(0.487)
Childcare support x country				
From 1 person x Bulgaria		1.047		1.128
		(0.421)		(0.464)
From more than 1 person x Bulgaria		0.945		0.864
		(0.367)		(0.438)
From 1 person x Germany		0.563		3.009*
		(0.510)		(0.613)

From more than 1 person x Germany		1.108 (0.468)		0.322 (0.751)
Negelkerke R Square	0.539	0.550	0.559	0.571
N	2255	2255	1504	1504

*** p<0.01; ** p<0.05; * p<0.1

Source: authors'estimation

Appendix Table A1. Descriptive statistics: percentage distribution of the variables included in the models

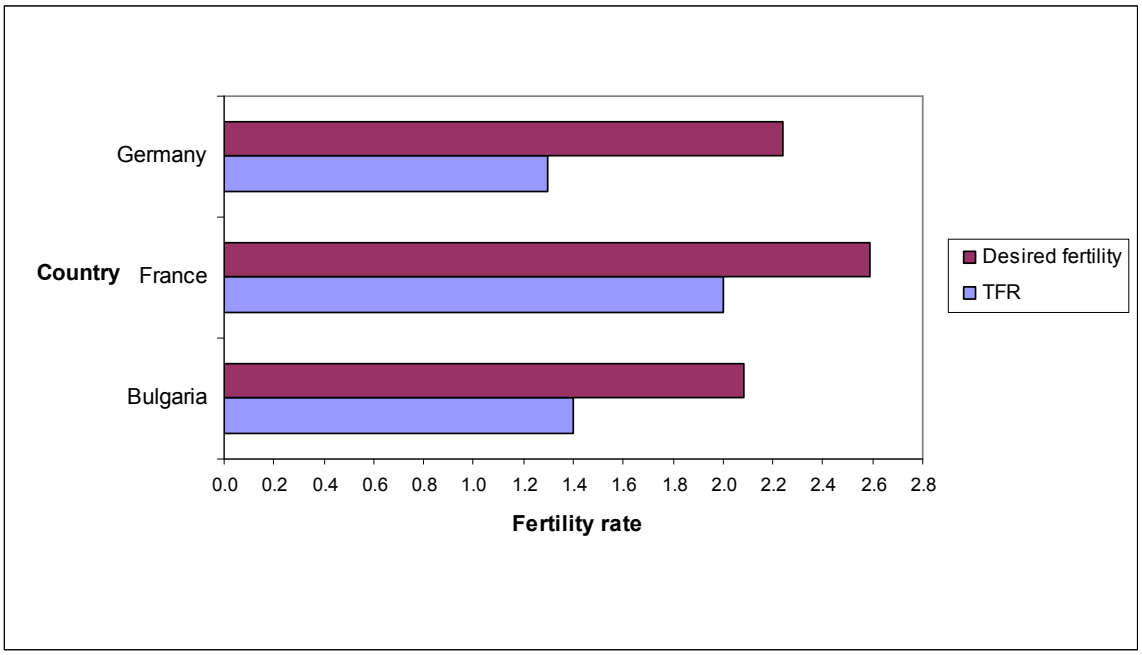
	Man			Woman		
	Bulgaria	Germany	France	Bulgaria	Germany	France
		%			%	
Fertility intentions in 3 years						
Positive	26.5	19.3	31.9	20.8	19.6	33.2
Negative	73.5	80.7	68.1	79.2	80.4	66.8
Age Group						
18-25	4.7	4.8	2.9	10.2	7.5	8.5
26-30	17.4	11.1	13.9	26.6	16.8	15.0
31-35	35.8	20.8	28.8	35.7	27.8	35.1
36-40	26.9	37.0	34.3	18.8	33.8	26.1
41-45	15.1	26.2	20.1	8.7	14.2	15.2
Number of children						
1	52.8	44.6	35.0	47.1	40.7	36.2
2	47.2	55.4	65.0	52.9	59.3	63.8
Partnership Status						
Married	87.5	90.1	71.0	88.2	87.5	71.2
Cohabiting	12.5	9.9	29.0	11.8	12.5	28.8
Education						
Primary education	20.5	8.9	15.0	17.0	10.6	11.4
Secondary education	64.7	59.7	54.9	51.6	63.9	46.2
Higher education	14.8	31.4	30.1	31.4	25.5	42.4
Partner's education						
Primary education	19.7	15.8	15.2	16.9	5.7	14.3
Secondary education	56.8	65.9	48.2	63.0	60.1	54.0
Higher education	23.5	18.3	36.6	20.1	34.2	31.7
Employment Status						
Unemployed	19.3	9.6	6.2	36.7	46.5	24.8
Employed	80.7	90.4	93.8	63.3	53.5	75.2
Partner's Employment Status						
Unemployed	41.4	56.9	24.3	17.6	9.3	5.1

Employed	58.6	43.1	75.7	82.4	90.7	94.9
Emotional support						
No support	61.2	74.1	61.3	38.3	50.7	24.6
Support from 1 provider	20.4	13.6	19.5	31.9	26.1	34.1
Several providers	18.3	12.3	19.2	29.8	23.1	41.3
Childcare support						
No support	64.2	75.0	57.5	64.7	65.9	53.8
Support from 1 provider	16.9	14.8	22.1	19.0	18.8	17.8
Several providers	18.9	10.2	20.4	16.3	15.3	28.4

	Mean	**SD**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**
Age youngest child (0-14)	6.26	4.37	5.37	4.02	4.37	3.87	6.94	4.33	5.28	4.16	4.88	4.1
Partner's support (1-6)	3.88	0.63	3.51	0.46	3.63	0.72	1.94	0.63	2.31	0.38	2.14	0.68
Social pressure (3-15)	7.29	3.59	5.32	3.55	6.18	3.69	6.97	3.54	5.67	3.6	6.26	3.59
Perceived security (1-6)	2.3	1.08	3.76	1.12	3.39	1.21	2.4	1.05	3.79	1.11	3.48	1.14

Figures

Figure 1. Desired and actual fertility for France, Germany and Bulgaria



Source: UNECE 2006, Special Eurobarometer 2006.

Figure 2. Social pressure and men's fertility intentions

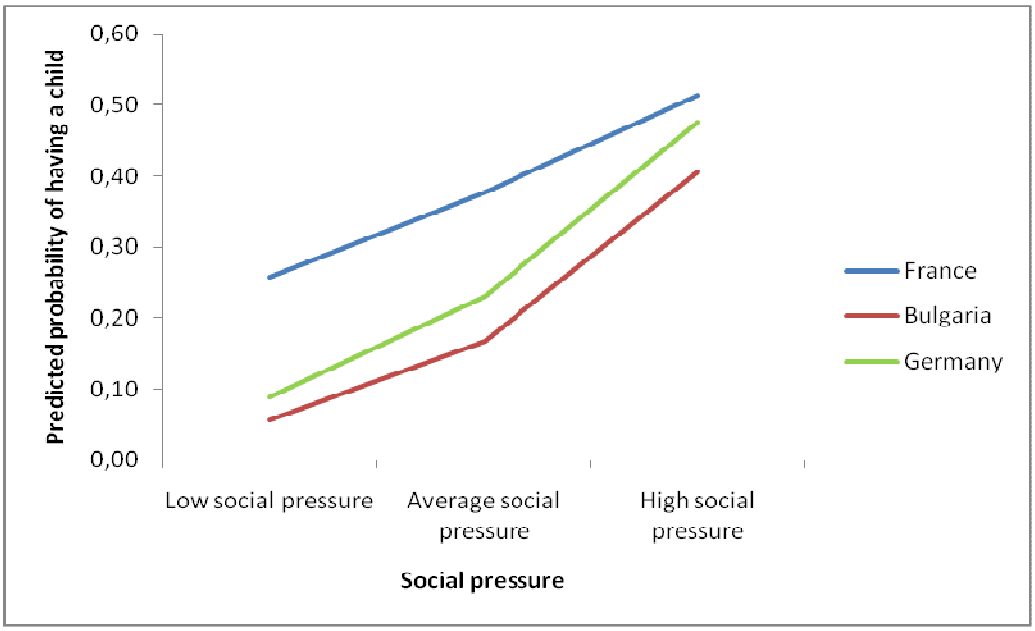


Figure 3. Informal childcare support and men's fertility intentions in Germany