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Social capital and fertility intentions: The case of Italy, Bulgaria, and West Germany

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Social Capital and Fertility Intentions: The Case of Italy, Bulgaria, and West Germany



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Abstract

Despite the many differences that exist between Italy, Bulgaria, and Germany, the three countries are among those with the lowest fertility rates in Europe. However, they differ in the level of public support for families and the role of informal supportive networks in daily life. Italy and Bulgaria, on the one hand, share very low levels of public support. In both countries, consequently, informal supportive networks based on family relationships and kinship have a strong tradition and a high relevance for getting things done. In Germany, however, support by family policy is much stronger and the importance of such supportive networks is weaker. The paper addresses the question whether these different constellations of public and informal social support have an impact on reproductive decision-making. In particular, it concentrates on the impact of supportive networks on intentions to have a second child. Analyses based on data from the “Generations and Gender Programme”, a comparative survey that was conducted recently in all three countries, provide mixed results. While there is a significant influence of access to informal support on the intention to have a second child in Bulgaria and no significant effect in West Germany, findings for Italy obviously contradict theoretical propositions and suggest that future analysis takes more comprehensive account of the work strategy of the mothers in the context of the current Italian labour market characteristics.

Keywords

Social capital, fertility, fertility intentions, informal help, informal support.

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1. Introduction

Despite the many differences that exist between Italy, Bulgaria and Germany concerning their economic systems and historical, religious, and cultural backgrounds, the three countries are among those with the lowest fertility rates in Europe. During the 1970s, Total Fertility Rates (TFR) declined below replacement level in both eastern and western Germany as well as in Italy. In West Germany and Italy, fertility declined further and reached levels of lowest-low fertility¹ in the first half of the 1990s (De Rose *et al.* 2008; Dorbritz 2008). In East Germany a pronatalist policy had induced a temporary increase in reproduction, but after the abrupt system change in 1989 the TFR fell sharply to 0.98 children per woman in 1991 and kept at a level around one during the 1990s. Throughout the last decade, however, this trend has reversed and in 2007, levels of fertility were almost equal in both parts of Germany with a TFR close to 1.4. Henceforward, fertility rates in eastern Germany have been higher than in the western part of the country (Federal German Statistical Office 2011). Bulgaria even experienced a much sharper decline. After the breakdown of state socialism in 1989, fertility went down dramatically from 1.9 children per women in 1989 to a level of 1.2 in 2002 (Council of Europe 2005). Even from a cohort perspective, the three countries share a similar, striking record: they were among the first countries that experienced total cohort fertility rates below or equal to 1.5. This happened in Italy and Germany with the cohort born in 1966, and in Bulgaria with the cohort born in 1973 (Council of Europe 2005).

Although Bulgaria, Germany and Italy document exceptionally low levels of fertility, they represent an overall trend towards low and lowest-low fertility in western societies up to the 1990s² (Frejka, Sobotka 2008). The reasons for this development are the subject of an ongoing discussion in demography. Two general lines of argumentation characterise this discourse. The first one sees changing values as the responsible factor. Processes of individualisation, secularisation, or women's emancipation challenge traditional living arrangements, gender roles and perceptions of family and fertility, which again lead to postponed and low levels of reproduction (Lesthaeghe 2010; Surkyn, Lesthaeghe 2004). The second argument addresses economic aspects. During the second half of the 20th century, the direct and indirect costs of having children have risen significantly. Individuals developed high levels of aspiration according to their living conditions and the prospects of life of their children. At the same time, however, they face increasing economic uncertainties due to higher risks of unemployment, discontinuous employment biographies or declining income and wages. Consequently, many people think that they can afford

¹ According to Kohler *et al.* (2002), lowest-low fertility is defined as a TFR below 1.3.

² The recent rise in European fertility documented by Goldstein *et al.* (2009) seems to be largely explained by a decline in the pace of fertility postponement (Bongaarts, Sobotka, 2012 forthcoming).

only small families or that they should postpone childbearing until their economic situation is settled (McDonald 2000; Adsera 2004, 2011; Blossfeld 2010).

The latter argument addresses the fact that individuals possess only limited resources - especially related to time and money - to fulfil their reproductive desires. Moreover, these desires have to compete with goals in other living spheres, such as work or leisure. Consequently, if - *ceteris paribus* - the realisation of reproductive aims becomes more costly or if goals in other living spheres become more important, individuals' fertility will decline. Additionally, the first argument implies that fertility may benefit from reduced budget constraints, i.e. from more time and/or money individuals can spend on their children. In reality, however, individuals have only limited possibilities in reducing these constraints by their own actions. Thus, resources external to individuals or their households become important. These resources can be provided by welfare systems as well as by members of an individual's personal environment.

Research on the impact of welfare systems on reproduction makes up a significant part of the demographic literature. By contrast, the relevance of social support by individual environment is only poorly understood. There are a number of studies from Bulgaria, Poland, Hungary, and Russia describing the positive effect of supportive personal relationships on decisions to have a first or another child (Bühler, Philipov 2005; Bühler, Fraczak 2007; Philipov *et al.* 2006; Philipov, Shkolnikov 2001). However, all these studies took place in central and eastern European countries and the question emerges whether these results indicate local phenomena or whether there is a general influence of supportive relationships on reproductive decisions. Furthermore, there is some evidence that social networks influence reproductive desires and planning by processes of social learning and interpersonal influence (Balbo, Mills 2011a, 2011b) but insight is lacking about the impact of supportive resources, like money, active help or child care, provided by network partners.

The paper focuses on these aspects and asks whether the experience of informal child care for the first child and the perception of a supportive social environment influence intentions to have a second child within the context of different welfare systems. Intentions rather than reproductive outcomes are addressed, as we want to analyse determinants of reproductive decision-making. Empirically, we follow a comparative perspective by addressing the impact of supportive relationships on reproductive intentions in Bulgaria, Italy and Germany. As mentioned above, all three countries are of interest because of their very low levels of fertility. In addition, they all exhibit different structures both with regard to their welfare systems and to their level and structure of interpersonal support.

The paper is based on the following structure: After a discussion of the theoretical background regarding how supportive relationships influence fertility intentions, the data and methods used are briefly introduced. The results will be reported in the fourth section and their critical discussion will close the paper in the last section.

2. Theoretical Focus: Supportive Relationships and Fertility

2.1 Coping with Scarce Resources and Reproductive Decision Making

The starting point of our theoretical considerations is the neoclassical theory of the household (Becker 1960, 1993). By addressing the scarce resources a household has to handle, it offers a theoretical integration of supportive personal relationships into a general approach of fertility in modern societies (Bühler 2008). According to neoclassical theory, households are characterised - among other things - by the production and consumption of commodities, i.e. goods and services household members cannot buy on markets, like a family life, having children, health, or a partnership. In order to produce these commodities, household members have to spend money to obtain goods and services needed for production and they have to spend time for the production itself. In most cases, a household's monetary budget depends on the wages offered in the labour market and the time household members are willing and able to spend on income generating activities. However, time spent at work cannot be spent for the production of commodities at home. Moreover, time spent at home but not spent at work causes opportunity costs due to forgone income. Both trade-offs lead to a complex problem of optimisation that households are faced with (Becker 1965): How much time do their members have to spend on work in order to generate a particular level of income, and is the amount of money earned as well as the time left sufficient for the production of the commodities they like to have?

Households can handle this problem in different ways. (1) They can reduce the amount of commodities produced at home by changing their preferences. However, preferences do not change quickly and many commodities are closely associated with each other making the reduction of particular commodities difficult. (2) Household members increase their incomes. Unfortunately, the amount of income does not only depend on the household members' abilities and occupational mobility. It also depends on general wage developments. If wages increase, households receive higher incomes, but they are also faced with higher opportunity costs. (3) Household members establish a division of labour. Members with the highest income potentials according to their occupational abilities and wages spend their time primarily on income-generating activities. Members with lower income potentials specialise in the production of commodities.

These general considerations can directly be applied to reproductive decision-making. Children build one part of a household's set of commodities. Therefore, the decision to have a first or another child takes place within the household members' general preference structures with regard to the production of different commodities and within the household's budget constraints. One traditional answer to this limitation is a gender-specific division of labour. Men specialise in the generation of income; women stay at home and care for the children. However, this division is becoming increasingly challenged. Women have changed their preference structure substantially, as they are now demanding both an occupational career and a family. In many western societies, moreover, women's income potential has grown significantly. Women are on average better educated than men and female wages

have grown continuously. Thus, households have to think about alternative solutions to handle their constraints regarding the decision of having children.

Possible alternatives become more visible if one looks more closely at the mechanisms that are responsible for the trade-off between income and time. In most cases, households' monetary budgets rest on employment relationships. These are organised by principles of economic exchange, i.e. by mutual transfers that are negotiated and fixed in advance, and that constitute reciprocity immediately or within a short period. Employment relationships rest on exchanges of personal time against money between employees and employers. They are fixed by labour contracts and reciprocity is established within a short period, i.e. most employees receive their wages on a daily, weekly, or monthly basis. Thus, there is no possibility to receive income in advance for a longer period or to receive income on a credit base. Consequently, two possibilities exist about reducing households' constraints with regard to money and time: first, their dependence from economic exchanges can be eased by resources provided by modern welfare systems, or, second, by engaging in exchange activities in which household members' personal time is not one of the traded goods.

2.1.1 Welfare Systems Easing Household's Constraints

In order to understand the relevance of supportive relationships for the decision of having a first or another child in different societies, one also has to consider the character of the countries' welfare systems. European societies can be divided according to their legal and organisational systems that regulate the relations between the state (social benefits), the economy (the market), and the households (family relations) (Esping-Andersen 1990; Gauthier 1996; Bettio, Villa 1998). Countries vary by the degree of independence of social benefits from markets and family relations (de-commodification) and by the degree of universality of benefits (stratification). Social-democratic welfare regimes are characterised by a high universality and independence of benefits, liberal welfare regimes, however, score low on both dimensions. Conservative welfare regimes, to which Germany belongs, are placed in between these two poles, and the "familist" countries of southern Europe, like Italy, take special position in this spectrum because of the dependence of the welfare system on the family relationships and support. The countries of the former socialist block, including therefore Bulgaria, originally excluded by the classification, score still high on universalism, but low on de-commodification and therefore they belong to a distinctive group (the post-socialist welfare regime).

Different welfare systems may have different influences on households' commodity as they may ease the constraints according to time and money in different ways. By providing monetary transfers, like payments of child benefits, they directly increase households' incomes. In the case of parental leave, as well as by establishing institutions taking over household-related tasks, like child care facilities, nursery schools or day-care centres, welfare policy reduces household members' constraints according to time. Moreover, if these services are offered for free or at reduced costs, social policy additionally reduces monetary constraints. Thus, household members can spend more time with their children without facing a substantial decline of

income, or they have more time for work without running the risk of insufficiently caring for their children.

2.1.2 Social Exchange Easing Household's Constraints

Households may also become less dependent from structures of economic exchange by engaging in social exchange. Social exchange differs from economic exchange in various aspects, but especially because neither the amount and value of exchanged goods and services nor the period of establishing reciprocity are negotiated or fixed in advance. Social exchange is characterised by uncertainty; however, if reciprocity is established successfully, uncertainty is turned into trust (Molm *et al.* 2007; Cook 2004). These aspects of interpersonal exchange relationships, reciprocity and trust, may have two important implications for a household's budget constraints. (1) Household members are provided with resources that do not have to be reciprocated within a short period. (2) Social exchange is also characterised by transfers of very different 'currencies'. Within close relationships, in fact, a multiplicity of goods and services is transferred. This implies that household members are not forced to offer their personal time or to spend money in order to get access to resources owned by their network partners. They may be able to transfer other valuable things such as assistance, knowledge, affection, influence, goods they can afford, or companionship.

These considerations lead to the general conclusion that households' embeddedness in structures of social exchange, indicated by supportive personal relationships, eases their constraints according to time and money. Consequently, they may be able to produce more commodities or commodities of higher quality without spending more personal time at work or investing more money which will also have an impact on reproductive decision-making.

2.2 Welfare Systems and Social-Capital Systems

The discussion so far has argued that welfare systems as well as personal supportive relationships are potentially able to ease households' constraints according to time and money. However, they also have the ability to reduce uncertainty, as they rest on administrative or social structures that are relatively stable over time. This aspect is especially important within the context of fertility. The decision to have a first or another child is a decision with long-term consequences that can hardly be known at the period the decision has to be made. As a consequence, individuals account for future help and support from both social networks and welfare systems within their processes of reproductive decision-making. The relationship between welfare systems and personal supportive relationships is commonly assumed to be a substitutive one. As a result, we hypothesise a varying significance of supportive relationships on reproductive decision-making due to the diverse structures and

effectiveness of welfare systems in different countries. The less support from the state there is, the more important support from social networks becomes³.

Bulgaria, Germany and Italy do not only belong to different welfare system regimes, they are also characterised by different social-capital regimes (Pichler, Wallace 2007). As far as the welfare system is concerned, Bulgaria has belonged to the state-socialist societies with their systems of universal welfare policy. After the breakdown of state-socialism, however, this system has undergone considerable erosion. Moreover, fuelled by a vast economic crises, Bulgaria's social policy received - similar to other central and eastern European societies - the character of a "shadow welfare state" (Koeva, Bould 2007), this expression meaning that there is an existing welfare state, but it does not have any power because it lacks financial means. Italy belongs to the group of conservative-Mediterranean (familist) welfare states, which are characterised by few provisions from the state and an important role of families to manage difficult moments of their members (Bettio, Villa 1998). Western Germany, finally, is conventionally attributed to the group of conservative welfare states, and after the unification eastern Germany entered into the same system.

Looking at the character and significance of supportive networks in different societies, a similar classification is possible, which is closely related to the countries' welfare regimes (Pichler, Wallace 2007). In Germany, social policy plays a crucial role in supporting young families (Bahle 1995). Thus, social support or other forms of informal help are - although not entirely missing - of minor importance for assisting young families. However, a shortage of day-care institutions in the western part of Germany leads to a higher importance of informal networks for providing child care compared to east Germany (Hank *et al.* 2004). This shortage, however, does not automatically lead to an activation of informal child care arrangements, as western Germany is a typical case of a regime where child care is seen as a mother's responsibility (Letablier, Jönsson 2005). In Italy, the lack of social policy supporting young families is compensated by strong intergenerational support by the families of origin in all the stages of the life course (Dalla Zuanna, Micheli 2004). This holds also for the provision of child care (Letablier, Jönsson 2005). Bulgaria, finally, is a country under transition. Since the breakdown of the socialist regime in 1989, the Bulgarian society has had to face dramatic changes: the introduction of a market economy instead of a centralised one, the change in the political system from one dominant party to a multi-party democracy, dramatic economic crises, a significant rise of inequality and the cutback of the welfare system, which had a universal character at the time of socialism (UNECE and UNFPA 2001). As a consequence, child care became only available as private-sector commodity or as network resource (Koeva, Bould 2007). Bulgaria, however, has a strong tradition of supportive relationships between individuals and households, which helped to overcome the permanent shortage of goods and services during socialism and has also helped individuals in coping with the shortage of money and the uncertainties of daily life after 1989 (Kostov, Lingard 2002; Cellarius 2000).

³ Not all authors assume this direction of effect. For example Kaariainen and Lehtonen (2006) present the alternative hypothesis that a high degree of social capital can be found in countries where the welfare system is more advanced.

2.3 Fertility Intentions

Throughout the 20th century, the nature of fertility has changed. In modern societies, fertility is very much characterised by people's active demand for children. Due to the prevalence of family planning and contraceptive use, fertility is less dependent on individuals' natural fecundity, but by their desire for children, i.e. by their willingness to have a particular number of children at particular periods in their life courses. Consequently, fertility became very much an outcome of processes of decision-making and purposeful behaviour. This is also mirrored by research on fertility, which has become increasingly interested in a more detailed understanding of reproductive decision-making. In this connection, the theory of intentions is receiving much scientific recognition. Intentions are a central part of purposeful behaviour. They define an internal state prior to action, in which individuals formulate how seriously they plan to execute particular goal-directed activities (Ajzen 1991). Applied to fertility, intentions inform about reproductive plans, i.e. about proceptive or contraceptive behaviours people want to perform in a near future (Miller 1994).

However, the execution of these instrumental activities is influenced by intervening factors such as unintended pregnancies, child mortality, infertility or changing opportunity costs (Bongaarts 2001), which may produce a weak match between fertility intentions and reproductive outcomes at the individual level. Consequently, observed levels of fertility are an expression of reproductive intentions and of events that hinder, slow down or promote their implementation (Quesnel-Vallée, Morgan 2003; Schoen *et al.* 1999). From an analytical point of view, therefore, it makes sense to look at the determinants of intentions and of fertility outcomes separately.

Recent studies on Russia, Poland, Hungary, and Bulgaria show the positive significance of supportive resources located in social networks on fertility intentions (Bühler, Philipov 2005; Bühler, Fraczak 2007; Philipov *et al.* 2006; Philipov, Shkolnikov 2001). The introduction of the structural perspective of social networks into the study of cultural and economic factors of reproductive decisions in central and eastern Europe offers new insights. Informal economic help and supportive relationships are viewed as strategies in coping with economic difficulties and stabilising the economic situation of a household. This has in turn positive impacts on household members' fertility-related intentions. In Italy and Germany analyses based on large representative samples about the effect of network-based child care on fertility intentions are still lacking. For Italy, however, we can hypothesise that the combination of a weak welfare system and strong ties to family members and relatives (Dalla Zuanna, Micheli 2004) creates a situation such that supportive social networks build a crucial factor in shaping individuals' fertility intentions. In Germany, by contrast, there is a lower level of network-based support but a higher level of state assistance for young families. Thus, social support should be less important as a determinant of fertility intentions.

3. Data and Methods

3.1 Data

The data used in the following analysis stem from the Italian multi-purpose household survey on “Family and Social Subjects”, carried out in 2003, as well as from the Bulgarian and German “Generations and Gender Surveys”, conducted in 2004 and 2005, respectively. The three surveys are part of the international Generations and Gender Programme, which aims at a cross-national, comparative, and longitudinal study of the dynamics of the family and family relationships in industrialised countries.⁴ The Italian survey provides information about 49,451 respondents of all age groups,⁵ the Bulgarian study covers 12,824 individuals aged 18-79 and the German survey 10,017 individuals aged 18-79. Although with a varying degree of comparability, all surveys provide basic information about respondents’ social networks, the exchange relationships of monetary and non-monetary support, and the respondents’ reproductive intentions.

These populations of respondents had to be reduced for our analyses by several criteria. First, the analyses are limited to respondents at childbearing age, i.e. women and men who are less than 50 years old. Second, we concentrate on respondents living in a marital or non-marital partnership. This is because fertility intentions build the dependent variable in the analyses. Intentions are not desires or personal ideas about fertility (Miller 1994). They address realistic activities and reproductive goals that reflect current living conditions. In all three countries considered, one general and realistic precondition for having children is living with a partner.⁶ For that reason, we narrow down the sample to respondents who are currently living together as a cohabiting or married couple. In a third step, we restrict the population to respondents with one child. This is because of two reasons. As we analyse the impact of social capital on fertility intentions, we prefer to focus on situations where the network of formal and informal help is already active or at least it is already clear to the parents what kind of help is needed when there is a child. Furthermore, we want to focus on a period in parents’ life when need for help is present with a high probability and, consequently, fertility intentions could be sensitive to the access to informal help. This argument holds especially for parents with a first child at pre-school age (0 to 5 years). We do not consider to analyse couples with two or more children as the reasons of parents with two or more children for having another child could be very different from the reasons for having a second one (Werner *et al.* 1975; Pollard, Morgan 2002; Bühler, Fratzak 2007; Bühler, Philipov 2005).

As a consequence of these selection procedures, our analyses rest on a quite specific sample. However, as we are among the first who analyse the influence of supportive

⁴ See webpage <http://www.ggp-i.org/> and Vikat *et al.* (2007) for further information.

⁵ Unlike the other two countries, the Italian sample is composed of about 20,000 households where every family member was interviewed.

⁶ In principle, however, one can also argue in a reverse causal order: individuals form a partnership because they intend to have child. This causality, however, addresses long-term planning and strategic behavior, which is different from the short-term character of intentions.

networks on fertility intentions in different welfare regimes, we prefer to have a clearly defined population that enables an unambiguous interpretation of the results.

The analysed population has additionally to be reduced because of country-specific constraints of the data. In the case of Germany, only respondents who have a German citizenship and who reside in western Germany are considered. We excluded non-Germans because we assume that they may have different kinds of social support in comparison with Germans. Although the German GGS took place fifteen years after reunification, living conditions in eastern and western Germany were vastly different at that time. Thus, just to control in the multivariate analyses whether a respondent lives in East or West Germany is not sufficient. Separate analyses for the two parts of Germany have to be performed, but as the analyses consider only respondents with one child, the number of cases of the eastern German population became too small. A similar situation holds for Bulgaria. The demographic behaviour of the ethnic groups of Turks and Roma (which make up around 16% of the population) is remarkably different from the one of the Bulgarian majority (Koytcheva, Philipov 2008). Again, the numbers of cases became too small in order to perform meaningful separate analyses for all three ethnic groups and the analyses only consider respondents who identify themselves as belonging to the Bulgarian ethnicity.

3.2 Description of Variables and Method

The intention to have a second child within a period of three years constitutes the analyses' dependent variable. In all three surveys, intentions were addressed by the question: "Do you intend to have a/another child during the next three years?" (see the Appendix for a documentation of the questions). The answer categories were "definitely not", "probably not", "probably yes" or "definitely yes". Due to sample size limitations, these categories were dichotomised in "no" (definitely not or probably not) and "yes" (probably yes or definitely yes). Respondents who did not provide an answer to the question were excluded. Due to the dichotomisation of the dependent variable, the multivariate analyses rest on a logistic model.

Three variables indicating the presence of fertility-related social capital build the central explanatory variables. The first variable directly addresses the presence of fertility-related social capital, as it provides information whether the first child is taken care by someone outside the family. If this is the case, a respondent can probably expect to receive this kind of support in the case of a second child. The other two variables cover the presence of social capital in general. The first one deals with the fact whether the respondent can rely on someone in the case of need, i.e. whether he or she may receive monetary or non-monetary support from friends or relatives. It has to be expected that this kind of social capital can also be utilised within the context of caring and rearing small children. Its presence, therefore, should promote intentions to have a second child. Finally, the information is considered whether the respondent thinks that most people can be trusted. Although this variable is usually included in analyses of social capital at the macro level (see, for example, Putnam 2001), it also informs about the presence of general interpersonal trust at the micro level. People who agree to this question should be more open to make use of informal care and they should have more confidence in

utilising social networks for help with rearing children. Again, this should promote the intention to have a second child.

The influence of the variables indicating the presence of fertility-related social capital on reproductive intentions should vary by country. We expect that informal support does not have an effect on the intention to have a second child in western Germany, but for Italy and Bulgaria an influence should be present. Because of the different level of economic development, we assume a diversity in the effect of social capital in Italy and in Bulgaria. In Bulgaria the possibility to rely on someone (in monetary and non-monetary terms) in case of need should make couples secure enough to intend to have the second child. In Italy, on the other hand, where the general economic situation is more favourable than in Bulgaria, the main aspect influencing the fertility decisions would be the confidence in the support of the informal care also for the second child, if that is given also to the first child.

We additionally consider a variable that provides information whether the first child receives any kind of professional care, like a crèche, nursery school, or baby sitter. This helps to identify the importance of informal care for the intentions to have a second child, net of the effect of any other available non-informal service.

The analyses also include a number of basic socio-demographic variables. These are utilised both for purposes of control and for a rough comparison of their influence on intended fertility between the three countries considered (see Table A in the Appendix for descriptive statistics). As our analyses are focused on respondents living in a marital or non-marital union, the control variables cover basic characteristics of the respondent, his or her partner, and the household.

As far as the couple situation is concerned, age, level of education, working situation of the partners, and kind of partnership are considered. Consistent to the literature, we expect that intentions for a second child decrease by age and increase by level of education, both for the respondent and his or her partner (Balbo, Mills 2011b; Mills *et al.* 2008; Bühler, Philipov 2005; Kreyenfeld 2004; Huinink 1995). According to the couple's working situation, two kinds of influence on reproductive intentions are possible. If both partners work, their reproductive intentions may, on the one hand, decrease due to limited time for caring and rearing the child as well as of high opportunity costs because of foregone earnings. On the other hand, it may promote intentions to have a second child because a double income attenuates the costs of a second child. Finally, the variable kind of partnership addresses whether the couple is married or not. Given the more binding character of a marriage, we expect a positive effect of married couples on the intention to have a second child.

Characteristics of the household concentrate on its economic situation. Due to a limited comparability of income questions, but also due to very different conditions according to the economy and income in the three countries, the economic situation is covered by a general question about the household's economic conditions. In the case of Bulgaria and Germany, the respondents were asked how well they were able to meet the household's needs during the last 12 months. In Italy, respondents should evaluate the family's economic situation for the same period.

Aspects of fertility-related values and norms are covered by two indicators. First by a respondent's evaluation whether he or she perceives himself or herself as being religious. Second, whether the couple lives in a rural or urban area. We hypothesise in general, that living in a rural area promotes intentions for having a second child due to the stronger presence of familialistic values and related social norms. Moreover, access to child care services, either formal or informal, vary greatly by the place of living.

The analyses also address the age of the first child, i.e. whether it is 0 to 2 or 3 to 5 years old. The data show that parents of very small children have higher intentions for a second one within the next years. Moreover, indefinite postponement, above all at older ages, could mean that a couple forgoes having a(nother) child (Bumpass *et al.* 1978; Rosina, Rizzi 2006). However, controlling for the age of the first child also helps to understand the effects of formal or informal child care for this child on the intentions to have a second child.

Finally, a remark about the analysis: we believe that the inclusion in the analysis of both female and male respondents does not lessen the validity of our results and we assume that there is an high correlation of the intentions of both partners (Thomson 1997; Thomson, Hoem 1998; Rosina, Testa 2009; Klobas *et al.* 2010; Testa 2010).

4. Empirical Results

Results from empirical analyses are presented in two steps. At the beginning, we descriptively report the distributions of the key-variables: respondents' intentions to have a second child, fertility-related social capital and the utilisation of formal and informal child care. Afterwards, we present results from multivariate analyses testing the influence of fertility-related social capital on the intention to have a second child. All analyses separately take place for Bulgaria, Germany, and Italy.

4.1 Descriptive Results: Fertility Intentions, Social Capital, and the Utilisation of Informal and Professional Child Care

The distribution of fertility intentions shows that having a second child is an important topic for the majority of respondents with one child. 59% of the Bulgarian and German interviewees reported an intention to have a second child within the next three years and about two third (67%) of the Italian respondents addressed this intention as well (see Table A in the Appendix).

According to the variables that indicate fertility-related social capital, the results in Table A in the Appendix show that informal help with the first child is most widespread in Italy: 74% of the respondents report that their only child is regularly (roughly once a week or more often) taken care of by someone who is not paid. The percentage is lower for Bulgaria (59%) and substantially lower for western Germany (47%). The possibility to rely on someone is common in western Germany and Italy (84% and 78%, respectively) but to a smaller amount in Bulgaria (52%). In western Germany, finally, 44% of the couples declare to trust people in general, but this attitude is considerably less present in Bulgaria (25%) and least so in Italy (19%).

The amount of professional and informal child care arrangements typically differ by the age of a child. Therefore, Table 1 reports results that are separated for respondents with children aged 0-2 or 3-5. Most of the Italian and Bulgarian parents with children aged 0-2 years use informal help (51% and 58%, respectively). However, 34% and 31% do not receive any help at all. In Germany, moreover, this group of parents builds the majority (53%). This finding is supported by other empirical results that identify the care of a very young child in Germany as sole responsibility of the mother (see, for example, Letablier, Jönsson, 2005).

Table 1

Combination of professional and informal help for children aged 0-2 and 3-5, Bulgaria (2004), western Germany (2005), and Italy (2003), in percentages

	Professional help	Informal help	Bulgaria	Western Germany	Italy
Child 0-2	Yes	Yes	9	11	14
	No	Yes	51	31	58
	Yes	No	6	5	7
	No	No	34	53	21
Total			100	100	100
Child 3-5	Yes	Yes	42	35	70
	No	Yes	17	10	8
	Yes	No	27	32	19
	No	No	14	22	4
Total			100	100	100

Source: Authors' own elaborations

Note: Weighted data, with normalized weights.

In the case of parents with children aged 3-5, the situation is different. In all three countries, most of the couples use both professional and informal care for their children. Furthermore, child care arrangements that exclusively use professional care are named second. In western Germany, however, a comparatively high share of parents (22%) does not make use of professional or informal child care.

4.2 Determinants of the Intention to have a Second Child

The results from multivariate logistic regressions, which are separately performed for Bulgaria, Germany, and Italy, show that the determinants of the intention to have a second child significantly differ between the three countries (see Table 2).⁷

⁷ The table with the results concerning the control variables is available from the authors upon request.

Table 2

Results of the logistic regression on the intention to have a second child in the next three years, respondents aged less than 50, living with a partner and having one child aged 0-5, Bulgaria (2004), western Germany (2005), and Italy (2003)

Variable	Bulgaria		Western Germany		Italy	
	Odds ratio	P-value	Odds ratio	P-value	Odds ratio	P-value
Informal help first child (ref. Yes)						
No	0.666	0.040	0.957	0.925	1.420	0.010
Can rely on people (ref. More or less or No)						
Yes	1.882	0.001	0.824	0.754	1.264	0.121
Trust in people (ref. No)						
Yes	1.446	0.108	0.921	0.868	1.383	0.033
Total respondents		525		135		1,622

Source: Authors' own elaborations

According to the variables indicating the respondent's fertility-related social capital, Bulgaria provides the nicest case for showing the relevance of social support in the field of fertility intentions. Respondents who receive informal help for their childrearing activities and, above all, respondents who can rely on someone in case of need show the intention to have a second child in the next three years. Also the variable about trust in people has the expected positive result and is almost significant at the 10% level.

As expected in our hypotheses, the indicators of social capital do not yield significant influences in western Germany. None of the variables show a stronger effect on the chance to intend a second child. Additional analyses on this question revealed, however, that in particular those parents receiving informal help who are generally not in favour of relying on professional child care have a significantly higher probability intending a second child (Ette, Ruckdeschel 2007).⁸ For reasons of cross-national comparison this analysis was not repeated here

For Italy, our results do not entirely confirm our hypotheses. In particular, informal child care received for the first child shows an unexpected negative effect. Unlike what we observe in Bulgaria, Italian parents, who do not receive informal help, have higher intentions for having a second child. The effect of "trust in people" shows the expected positive influence, as observed in Bulgaria. Those people who declare to trust the others (they represent less than 20% of our sample) show a significantly higher intention to have a second child.

The case of Italy is, of course, at the same time the most interesting and the most challenging. From further investigations, we noticed that the result about the informal help is above all due to the female respondents and several checks of the performed analyses tend to exclude that it is an artefact of our modelling. A

⁸ In western Germany quite a lot of people regard professional child care as second best in comparison to child care by the parents or grandparents, therefore in these models the use of professional help has been combined with the appreciation of professional help.

descriptive analysis of the data reveals that there are some differences in the characteristics of the mothers with and without informal help for the first child. Among the women that intend to have a child in the next three years and do not have informal help for childrearing (27% of the total) more often one partner in the couple does not work (64% vs. 36% of the women that have informal help), there are younger first children (67% vs. 63% of children younger than 3 years), they declare to have scarce economic resources (29% vs. 20%) and cannot rely on people in case of need (25% vs. 17%), see Table 3. Therefore, the most considerable difference seems to be related to the work situation.

Table 3

Percentage of women intending to have a second child in the next three years, with and without informal help, aged less than 50, living with a partner and having one child aged 0-5, Italy (2003)

Variable	With informal care	Without informal care
Work situation of the couple		
Both work	64.0	36.6
Other	36.0	64.4
Age of the first child		
0-2	63.2	66.6
3-5	36.8	33.4
Economic resources		
Scarce/insufficient	20.7	28.8
Very good/adequate	79.3	71.2
Can rely on people		
Yes	82.9	73.2
More or less or not	17.1	26.8

Source: Authors' own elaborations

Note: Weighted data, with normalized weights. See Appendix for an explanation of the modalities.

The analyses also provide some interesting results according to the control variables. In short, Italy and Bulgaria share the effect of the woman's age on fertility intentions, with older women having less intention to have a second child. Apart from this finding, the three countries show no other common significant result among the control variables.

Bulgaria is the only country where the intentions of men and women are significantly different from each other, with women less likely to intend to have a second child soon. For Bulgarian respondents the use of professional help for the first child has a significant positive impact on their fertility intentions. In western Germany the probability of wanting a second child is significantly higher if the first child is younger than three years. This result is confirmed by other studies referring to the

actual birth of the second child where the characteristic interval between the first and the second birth is about three years (e.g. Kreyenfeld 2004; Kreyenfeld, Huinink 2003). The threshold of three years is explained as a result of German maternity leave regulations which guarantee job security for three years after the birth of a child and are renewed with a subsequent birth during this time. In Italy the probability of intending to have a child significantly decreases not only with woman's age, but also with that of the man. Higher fertility intentions are found among married people as compared to cohabitants as well as among residents in the metropolitan areas and in southern Italy, compared to residents elsewhere. The economic situation of the couple proves to be important: people who consider their economic resources good or adequate have higher intentions to have a second child than people who define them as scarce and insufficient.

5. Conclusions

Our paper aimed at finding a relationship between the variety of forms of social capital in selected European countries and the intentions to have a second child. The main hypothesis is that support both from the state and public services as well as from personal networks and informal exchange-relationships provide valuable resources that individuals utilise to achieve their desired goals. Moreover, individuals consider the availability of these resources in their processes of decision-making, which holds also for considerations to have a first or another child. Due to the substituting relationship between informal and public support, the importance of network-based assistance is dependent from the performance of public services. Thus, in countries with limited or malfunctioning welfare systems, personal networks build essential sources of support. This holds, for example, in Bulgaria. Serious problems in establishing a powerful welfare system and a profound economic crisis following the fall of the socialist regime made support from relatives and neighbours essentially important for the necessities of daily life. In Italy, a complete lack of public services dedicated to very small children makes help coming from friends and above all relatives crucial for the childbearing decision and childrearing process. Although western Germany is not a perfect example for a country where the state provides a good quality and sufficient quantity of public services for small children, parents receive much more support from the welfare system as in Bulgaria and Italy. As a consequence, assistance from personal relationships is less important within the context of fertility than in the other two countries.

The outcome of the analysis only partially supports our hypothesis. For Germany and Bulgaria, the results confirm the hypothesised role of social capital for the intention to have a second child: it is not relevant in western Germany but of essential importance in Bulgaria. In Italy, however, the very people who receive informal child care by relatives and friends, and who could therefore assume to get the same help for a second child, more often declare that they do not intend to have a second child in the next three years as compared to people who cannot fall back on informal help. This result can also be found for other European societies: in the Netherlands, for example, Balbo and Mills (2011b) find that the presence of siblings who have small children could have the effect of postponing having another, probably due to a lack of availability of informal child care from the grandparents, but at the same time

lower family social capital – where family social capital is defined as closeness among the members of the extended family - positively influences the realisation of the intention to have another child.

Again, in Italy the group of people who do not have informal help is characterised above all by a lower incidence of the ‘dual earners’ arrangement in the couple at the moment of the interview. It could be possible that women who cannot count on informal support of other family members and who probably worked before the first child tend to interrupt their work activity for family reasons. If they would like to go back to work after the childrearing period, probably they aim for a short interval between the two births to keep the inactivity time as brief as possible. This effect should be especially relevant in Italy because in the other two countries either the social capital is not relevant and anyway the law supports a relative long absence from the workplace for family reasons (western Germany) or the economic situation is such that it is not really an option to be inactive anyway (Bulgaria). In Italy, instead, the law allows long leaves to working mothers only under particular circumstances (for example if they hold a job in the public sector, or at least a regular contract) and moreover mothers make little use of part-time possibilities, if any. This hypothesis should be tested not only on the current data, but also by means of data stemming from the second wave of the Italian GGS survey, in which a subsample of the original respondents were re-interviewed three years after the first survey.

As far as our approach to the measurement of social capital is concerned, some critic remarks must be made about our choices. For reasons of comparability, we had to keep the explanatory variables as simple and comparable as possible among the three countries. Therefore, our measurement of fertility-related social capital is not optimal. The data allow only for information about informal care received by the child of the respondent, the possibility to rely on someone in case of need and trust in other people. However, information is missing about the reciprocity of the help that in the theory of social capital plays an important role. Nonetheless, our paper is one of the first that considers social capital to study fertility intentions in a comparative perspective, and that includes western, southern and eastern European countries.

Finally, a remark to the use of fertility intentions as an outcome variable has to be made. The use of the variables referring to the social capital characteristics at the moment of the interview to study its impact on past births is, as known, a conceptual mistake. Using fertility intentions, instead, allows the analysis of the effect of social capital on childbearing decisions because we can measure the two concepts in the appropriate time frame. While gaining the possibility to perform the analysis, however, we lose the possibility to explore what dimension of informal help matters for the intended fertility and its realisation. On the one hand, it could be that past, not present, child care arrangements (experienced with their older pre-school children) matter to parents for subsequent fertility intentions. The help given informally by family and non-family members during the first three years of life of children could be the crucial indicator of the importance of social capital for childbearing, but this type of information is completely lost in a survey that asks about informal help for childrearing to parents whose children are already older than three. Another aspect is that we cannot measure if social capital matters for realised, not intended, fertility, net of the effect of other factors. Although intended and realised fertility are usually

strongly connected we can measure the effect of social-capital variables on both only in a panel survey. As some of the countries who had a first cross-sectional survey will also have a second wave, this aspect could be explored.

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Appendix

Table A

Characteristics of the sample, in percentages. Respondents less than 50 years old living with a partner and with only one child 0-5 years old, Bulgaria (2004), western Germany (2005), and Italy (2003)

Variable	Bulgaria	Western Germany	Italy
<i>Intentions to have a child in the next three years</i>			
Yes	59.1	58.6	66.6
No	40.9	41.4	33.4
<i>Gender</i>			
Woman	58.5	63.0	50.5
Man	41.5	37.0	49.5
<i>Woman's age</i>			
<30	70.9	37.0	33.7
30-34	20.8	36.3	37.4
35-39	6.3	21.5	23.1
40-49	2.1	5.2	5.7
<i>Man's age</i>			
<30	41.3	20.7	14.1
30-34	37.7	27.4	35.8
35-39	13.3	34.8	33.6
40-49	7.6	17.0	16.5
<i>Woman's education^a</i>			
High (Italy: high and medium)	38.5	40.0	57.3
Low or medium (Italy: low)	61.5	60.0	42.7
<i>Man's education^a</i>			
High (Italy: high and medium)	24.8	37.8	49.5
Low or medium (Italy: low)	75.2	62.2	50.5
<i>Work situation of the couple</i>			
Both working	70.7	45.9	58.3
Other	29.3	54.1	41.7
<i>Type of union</i>			
Cohabitation	16.4	16.3	8.5
Marriage	83.6	83.7	91.5
<i>Make ends meets^b (for Bulgaria & W. Germany)</i>			
Easily	12.4	27.4	
With some difficulty	42.7	62.2	
With difficulty	25.1	6.7	
With great difficulty	19.8	3.7	
<i>Economic resources^b (for Italy)</i>			
Poor/insufficient			24.1
Excellent/adequate			75.9
<i>Religiosity^c</i>			
Religious	75.2	45.9	85.8
Not religious	24.8	54.1	14.2

Variable	Bulgaria	Western Germany	Italy
<i>Residence^d</i>			
Rural	24.2	26.7	81.2
Urban	75.8	73.3	18.8
<i>Region (for Italy)</i>			
Northern Italy		-	43.3
Central Italy		-	17.9
Southern Italy and Islands		-	38.8
<i>Age of the first child</i>			
0-2	52.8	59.3	65.0
3-5	47.2	40.7	35.0
<i>Professional help with the first child^e</i>			
Yes	40.9	39.3	45.0
No	59.1	60.7	55.0
<i>Informal help first child^f</i>			
Yes	59.2	46.7	73.7
No	40.8	53.3	26.3
<i>Can rely on people in case of need^g</i>			
Yes	51.8	78.5	83.2
More or less or not	48.2	21.5	16.8
<i>Trust in people^h</i>			
Yes	24.9	43.7	18.7
No	75.1	56.3	81.3
<i>Total respondents</i>	525	135	1622

Source: Authors' own elaborations

Notes to the variables:

^a Bulgaria: High education consists of college, university, or PhD. Medium and low education consists of secondary, primary, elementary and illiterate. Italy: High and medium education consists of PhD, university, upper secondary school. Low education consists of lower secondary and elementary school. Germany: High education includes upper secondary school, university and PhD. Low or medium education includes lower secondary and elementary school. The classification of the education level is different among the countries because of the difference in the education systems and therefore in the case numbers in each category.

^b For Bulgaria and Germany the question asked was: "A household might have various sources of income. More than one member of the family may be contributing income. Considering the total monthly income of your household, do you think you can meet the costs (make ends meet): With very great difficulty / With difficulty / With slight difficulty / Rather easily / Easily / Very easily". For Italy the question asked was: "Referring to the past twelve months and considering the needs of all the family components, how have the family's economic resources been overall? Excellent / Adequate / Poor / Insufficient".

^c In Bulgaria respondents are considered religious if they declared to belong to a religious faith (Orthodox, Muslim, Roman Catholic, Protestant, other) and attend religious services at least once a year (besides weddings, funerals, etc.). In Germany and Italy, the variable about belonging to a religious faith is not available and religiousness is defined as attending church services at least once a year.

^d Bulgaria: This variable indicated the size of the place of residence for most of the time until the respondent was 15 years old. It consists of two categories: city and village. Italy: the variable indicates the typology and the size of the current place of residence, "urban" refers to inhabitants living within the municipalities of the metropolitan areas or their surrounding area, "rural" refers to remaining

municipalities. Germany: the variable indicates the size of the current place of residence, “rural” meaning less than 50.000 inhabitants and “urban” more than 50.000 inhabitants.

^e For Bulgaria and Germany: “Do you regularly get help for child-care from a day centre, kindergarten, a nursery or pre-school, an after-school care-centre, a self-organised child care group, a baby-sitter or some other service, or through paid help? Yes / No”. For Italy, an indicator is built from different questions including kindergarten, nursery, remunerated people who usually takes care of the child when not with parents or at school, baby-sitter services, and part-time micro-kindergartens, family centres or some other places self-managed by parents.

^f For Bulgaria and Germany: “Do you regularly receive help in raising children from relatives, friends or other people not professionally involved in caring for children? Yes / No”. For Italy: “Who among the following adult persons usually takes care of the child when he/she is not with the parents or at school? Cohabitant grandparents, non-cohabitant grandparents; brothers and sisters (adults), cohabitant uncles, non-cohabitant uncles, other cohabitant relatives, other non-cohabitant relatives, non-remunerated friends, neighbours, other persons.”

^g For Bulgaria and Germany: “I will read you [six] statement[s] concerning your personal experience. Tell me to what extent [each of them] applies to you?[...] There are many people on whom I can fully rely: Yes / More or less / No [...]”. In Italy an indicator was built from the following three different questions. „Besides your parents, children, brothers and sisters, grandparents and grandchildren, are there any other relatives whom you are particularly fond of and/or on whom you could depend? No / Yes”, “Do you have one or several friends on whom you can count in case of need? No / Yes / Don’t know” and “Excluding relatives (yours or your spouse/partner’s) are there persons who live close to you and on whom you can count in case of need? No / Yes, a person or a family / Yes, several persons or families”. The indicator is recoded as “Yes” if there is at least one “Yes” in the listed answers, is recoded “No” otherwise.

^h For Bulgaria, Germany and Italy: “Do you think that, in general, most people can be trusted, or should one be very cautious with them? Most people can be trusted /One should be very cautious with them”.

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