Social capital and gender equity in explaining fertility behavior in Russia

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Abstract

This paper follows previous research on the role of social capital and gender equity in fertility behavior. Our research question is to what extent social capital and gender equality in housework and childcare can explain fertility intentions and subsequent births in Russia. Russia is a country with prevalence of one-child families, whereas social norm is still two-children family. Since state support of families with children is weak and public childcare is underdeveloped, families bear most of child-related costs. The paper is based on two waves of Generations and Gender Survey (GGS), conducted in Russia in 2004 and 2007. Sample includes women of 18-44 and men with partners of the same age. We used binary logit models. Dependent variables include a) intentions to give birth within 3 years, b) births between two waves. Main explanatory variables include gender equity and social capital. The former varies from traditional to egalitarian partnerships. The latter is measured by five variables - 'parental family', 'attitudes toward intergenerational support', 'financial transfers', 'closeness to parents' and 'received childcare'. We control for sex, birth cohort, regional availability of public childcare, socio-economic status. The results show that social network for childcare does not influence either intended or actual fertility. Close relations with separately living parents increase only intentions to become parents. But access to financial transfers influence both intended and actual births of the first and second child. Besides, egalitarian division of housework and childcare significantly increases the probability of first and second births and probability of intentions to have a second child. The tentative conclusion is that gender equity concept is more relevant to explaining fertility behavior of Russian population than social capital.

Keywords: very low fertility; gender; social capital; Russia

Introduction

Transformation of fertility toward decline of the number of children per woman and increase of the age of motherhood is observed in all post-communist countries but have different speed and particular features in Eastern and Central Europe (Frejka 2008; Frejka & Sobotka 2008). Russia has long been a country with a very low fertility level. Moreover, despite the two-child ideal family model remains dominating in Russia, most families have one child only, while the number of childless women and women with three and more children remain very limited (Frejka 2008; Zakharov 2008).

In the literature, two different approaches to explain fertility decline in modern Russia compete. The first links this trend to ideational factors and the second demographic transition (Golovlyanitstina 2007; Zakharov 2008), the second provides economic explanations (Kohler & Kohler 2002; Roshchina & Baykov 2005; Sinyavskaya, Kartseva, et al. 2007; Billingsley 2008). Empirical results of the effects of different social and economic factors on fertility behavior on micro-level are contradictory. Some researchers find no stable effects of income and labor markets status on fertility behavior (Kohler and Kohler 2002; Roshchina and Baykov 2005; Sinyavskaya, Kartseva et al. 2007), while other confirm the negative impact of downward social mobility on fertility (Billingsley 2008). Finally, many studies state that the main determinants of fertility intentions and tempo fertility are demographic factors, like age, partnerships and marital status, and parity (see, e.g., (Roshchina & Baykov 2005; Maleva & Sinyavskaya 2007).

At the same time, alternative costs of childbearing are high in modern Russia. The educational level of women is high and continues rising and female labor force participation remains high. In 2004, labour force participation rate of women of 15-72 years old was 60.8% and of men of the same age – 70.4%. Afterwards activity rates continued growing along with economic growth. Most of jobs in Russian labour market are full-time: in 2004, the average actual duration of a working week was 39.8 hours for men and 37.4 hours for women. Paid parental leaves can be taken until a child reaches 1.5 years old, but until 2007 the compensation was very low. The preschool institutions are underdeveloped for the youngest children: in 2004, of children below 3 only 21.1%[1] were covered. Kindergartens for children above 3 are of limited supply as well. The coverage of children 0 to 6 years old by kindergartens was 47.0% in 2004 and 48.6% in 2007, while the waiting list increased from 805.0 thousands of children below 6 in 2004 to 1505.3 thousands in 2007.

The inability of the state to cover either direct costs of childbearing via allowances and benefits or to supply enough child care services of good quality means that substantial part of childbearing and childrearing costs is covered by families. In Russia, many parents can get help in childcare from families within the household, since there are a substantial number of complex, multi-generational families (Prokofieva 2007). There are also evidences on the widespread intergenerational support in childcare and financial transfers between families (Gladnikova 2007; Ibragimova 2007). Most of the transfers come from parents to their adult children. Moreover, frequency of contacts between adult children and their parents increases when the former have their own children below 3 (Sinyavskaya & Gladnikova 2007). All these facts set assuming of the importance of engagement in social networks, and particular in intergenerational relations, for fertility behaviour. Indeed, Golovlyanitsina (2007) demonstrates that when parents support a woman's intention to have a child the effect of economic factors become insignificant. However, except of two studies conducted in early 2000s, documenting the importance of

[1] This and next figures on childcare coverage are estimated by Sinyavskaya on basis of Russian statistical agency (Rosstat) data.

social capital to fertility intentions in Russia ((Philipov & Shkolnikov 2001; Philipov 2003) quoted in (Bühler & Philipov 2005)), no other, more recent, research addresses this issue.

Gender is another issue that is undeservedly ignored in explaining reasons for low fertility in Russia. At the same time, serious contradictions between the gender equity proclaimed on macro-level (formally equal access to education, employment, the political rights etc.) and actual inequity in both labor market and particularly family exist in this country for many decades. Still, most of childcare and housework is provided by women (Ibragimova 2007; Korchagina & Prokofieva 2009). Together with a very limited number of part-time jobs it leads to bearing the double burden of paid employment and domestic responsibilities for women. According to McDonald (2008), such a combination is one of the most important factors of fertility decrease below replacement level.

Based on these results, we can assume that strong intergenerational relations and gender inequality in family might be factors of fertility intentions and births in modern Russia. Our research question is to what extent characteristics of intergenerational relations and family networks as well as gender distribution of homework and childcare influence on fertility intentions and subsequent births in modern Russia? Moreover, in the given study, we are interested in the effects of different types of social relationships on reproductive behavior, including general closeness of relationships between parents and children that might be perceived as a source of uncertainty reduction. Involvement in exchange of multi-purpose resources like financial transfers might loosen the household budget constraint. Lastly, receiving of fertility-specific resources like informal childcare might reduce child-related costs, increase mother's free time and thus ease the problem of incompatibility of paid employment and motherhood.

The study is based on the two waves of recent large-scale panel survey Russian Generations and Gender Survey data conducted in 2004 and 2007. Because of the panel character of the survey, we study the impact of social capital and gender relations variables not only on fertility intentions but also on the subsequent births.

The paper is structured as follows. It first discusses theoretical framing of studying the relations between social capital, gender relations and fertility behaviour and empirical evidences of these effects. Then we describe the data, our approach to measure dependent and explanatory variables and the method we use. The next section presents empirical results. Finally, we discuss the results and provide some concluding remarks.

Theoretical framing and previous empirical studies

Economic approach to fertility decisions is based on the rational choice models describing individual behavior through individual choices of the best alternatives from the set of available alternatives or opportunities. The demand for the number of children is a function of the quality of children, the amounts of mother's and father's time spent to the childcare, and the full costs of producing other commodities (other goods and services purchased or time spent). Becker affirms that "the cost of the mother's time is a major part of the total cost of producing and rearing children" (Becker 1991). As women usually tend to have lower potential market wages, they are inclined to specialize in housework and raising of children (Becker 1991). The model predicts negative relationship between woman's employment, wage and childbearing assuming that higher wage is associated with a higher cost of female time (substitution effect). Contrary, the influence of husband employment on fertility is considered in the view of the affordability of children. Man's wage increases household

resources and thus increases fertility, while his time spent on labor market is inelastic with respect to the number of children (income effect only).

However, this framework pays no attention to several important issues such as potential bargaining power of women in partnership and possibilities to substitute women in childcare (Esping-Andersen 2009), which become important in the modern world, where women actively participate in the labor market. Meanwhile, these possibilities of reducing mother's time spent to the childcare help to solve the issue of roles incompatibility and thus contribute to a better realization of reproductive behavior (Brewster & Rindfuss 2000; McDonald 2008). A growing body of the empirical literature confirms a positive impact of gender equal distribution of homework and childcare on fertility behavior and particularly on the transitions to second and subsequent births (Del Boca 2002; Oláh 2003; Duvander & Andersson 2006; Brodmann, Esping-Andersen & Guell 2007; Mills et al. 2008). At the same time, as Torr and Short (2004) demonstrate, the dependency form may be U-shaped: the greatest probability of a following birth may be both in the most traditional and in the most egalitarian families.

The concept of social capital, initially developed by sociologists, also is beyond the scopes of classical economic approach to analysis of fertility behavior. Only a part of the influence of social capital can be captured by the economic model, since participation in the interpersonal exchanges can increase individual and household's incomes, and reduce costs of childbearing and childrearing, for instance by means of informal financial transfers and childcare provided. At the same time, social capital can also be considered as a way of transmission of social norms within a social network[2]. And, more important, it can reduce uncertainty and thus also contributes to higher fertility (Philipov, Spéder, & Billari 2006).

Empirical research find a positive influence of some aspects of social capital on fertility intentions for the Eastern Europe (Bühler & Fratczak 2004; Bühler & Fratczak 2007; Bühler & Philipov 2005) as well as in Russia ((Philipov & Shkolnikov 2001; Philipov 2003) cit. by (Bühler & Philipov 2005)). Bühler and Philipov (2005:76) consider social capital as a form of income since their empirical results document the importance of only substantial resources provided by social capital. Bühler and Fratczak (2007) state the importance of social capital that helps to exchange all-purpose resources that can also be used for other purposes than fertility- and child-related costs. Besides, Bühler and Fratczak (2004) underline the importance of taking into account the exchanges in both directions. At the same time, in their comparative study of fertility intentions in Bulgaria and Hungary Philipov et al. (2006) confirmed the significance of social capital to intentions in Bulgaria, while in Hungary this effect was much less evident.

The present research draws primarily on these studies. However, our approach to measure social capital is slightly different. Based on our data source we can little say about the importance of all types of support respondent might receive. We also can hardly estimate the potential sources of support and thus have to rely on the data of actual exchanges happen in a year before the survey. However, we can differentiate between types of resources exchanged. For instance, we can analyze separately the closeness of relations between children and parents, financial transfers and informal childcare. The two former are multi-purpose resources, while the latter is fertility-specific resource.

Based on the literature review, we formulate the following hypotheses of our research:

[2] Coleman (1988) considered norms as a form of social capital.

- Predictors of fertility intentions and fertility decisions are parity-specific. Given the almost universal nature of the first births in Russia, decision to have a second child depends on larger number of factors.
- The effects of involvement in exchanges of different types of resources on fertility behavior are different.
- The impact of gender relations in the family on fertility decisions has a U-shape form: high propensity to have a second child will have the most traditional and the most modern (egalitarian) couples.

Data, method and variables

Data and method

Our empirical analysis is based on data from the "Generations and Gender Survey", a longitudinal panel study, which combines a retrospective view of behavior with a prospective approach. The survey examines determining factors (economic, sociological and psychological) of individual demographic behaviour, with a particular focus on intergenerational and gender relations (Vikat et al. 2007). We use two waves of Russian GGS conducted in 2004 and 2007. The first wave comprises 11,261 men and women of 18 to 79 years old; the second wave includes 11,117 respondents of 18-82 years old. Samples of both waves are representative at national level. The panel part of the survey includes 7,786 men and women.

For the present analysis we use a sub-sample of men and women aged 18—44. In the case of male respondents with partners in the household these age restrictions are imposed on their female partners. Respondents who declared themselves or their partners as disabled, pensioners, as well as those not to be fecund, without sexual experience and pregnant women are not included in the analysis. The study pinpoints the factors of intentions and subsequent decisions to have a first or a second child. Therefore, respondents with two or more children in 2004 are excluded from the final sample. Moreover, to make our sample more homogeneous we have excluded respondents with fostered/adopted children (33 observations). Furthermore, given that questions on childcare received by respondent's household were addressed only to respondents whose children were below 14, we additionally deleted respondents with older children from the analysis. Thus, our analysis of intentions is based on a sub-sample of cross-sectional 2004 data of 2,454 respondents. To explore determinants of subsequent births, we consider only panel respondents (n = 1,471). The descriptive characteristics of the sub-samples are given in *Table A 1* of the Appendix.

The analysis of factors of fertility intentions and subsequent births is based on binary logistic regressions. We run separate models for each birth order. Given that men and women report about who is more involved in household chores slightly differently, we run models for a sample of women only in addition to a sample of men and women. Finally, to understand better effects of social capital and gender relations on reproductive behavior we run a model of intentions to have a second child for respondents with a partner. Insufficient number of observations prevents us from running similar regressions of intentions to become a parent, or first / second births.

Dependent variables

In Russian GGS, fertility intentions were addressed with the following questions

1) "Do you yourself would like to have a (another) child now?" (answers included 'yes', 'no' or 'not sure')

2) "Are you going to have a (another) child in the next three years?" (with possible answers of 'definitely no', 'probably no', 'probably yes' or 'definitely yes'). Respondents who said 'probably no' or 'definitely no' were additionally asked: "Let's imagine that you do not plan to have a (another) child in the next three years; in general, would you like to have (other) children?" and they could reply again 'definitely no', 'probably no', 'probably yes' or 'definitely yes'.

Our previous analysis of fertility intentions revealed that the first question could be interpreted by respondents as a question about either their general intentions to have children or their plans to have it right now (Maleva & Sinyavskaya 2007). Besides, proportion of respondents who gave births between the first and second waves among those who replied positively on the first question was lower than among those who responded positively on the second question (Sinyavskaya & Tyndik 2009). For these reasons, we use the second question on intentions to have a child in our present analysis.

The distribution of answers on two questions included in the second block is presented in *Table 1*. Among those, who had no children in 2004, 8.5% did not like to have a child at all, while 52.2% intended to have a child within next 3 years. For respondents with 1 child in 2004, the proportion is different: 30.8% did not like have more children at all, 38.2% would like to have a second child within 3 years. Because of a small number of observations we decided to recode intentions as a binary variable, indicating whether or not a respondent is going to have a/another child within 3 years.

The second dependent variable measures whether a respondent had a child between two waves carried out in 2004 and 2007, including women who were pregnant at the time of the second wave. The total number of births in our panel sub-sample is 232, including 120 of first order, and 112 of second order.

Table 1: Respondent's intentions to have a child and subsequent births by the number of children belonging to a respondent in 2004, %

Variable	No children in 2004	1 child in 2004
Intentions to have a child		
definitely, in 3 years	19.6	10.1
probably, in 3 years	32.6	28.1
definitely, later	23.5	8.7
probably, later	15.9	22.2
probably, no	3.5	12.4
definitely, no	5.0	18.4
Total	100.0	100.00
N	**1158**	**1296**
Subsequent births		
yes	19.9	12.9
no	80.1	87.1
	100.0	100.0
N	**603**	868

Source: Russian GGS 1st wave (2004), Russian GGS panel (2004-2007)

Social capital

Operationalization of social capital at the individual level based on GGS data is difficult for the following reasons. First, the survey collects the information from respondents only and mostly about their relations with partners, as well as children and parents living separately. Therefore, we cannot measure and describe all the networks and social structures in which an individual is involved. For this reason, we follow an approach of previous studies of the effect of social capital on fertility (Bühler & Fratczak 2004; Bühler 2008; Philipov, Spéder, & Billari 2006) and focus our empirical definition of social capital on the respondent's involvement in exchange relationships with his/her parents and some other relatives living outside the household. Second, GGS provides little information about potential transfers of resources. Third, based on the interviewees answers we cannot differentiate between important and substantial support and small help.

At the same time, GGS allows to analyze different functions of social capital, including its ability to transmit social norms of reproductive behavior as well as to increase family resources and reduce costs of childbearing and childrearing. In the given research, social capital is made up of four variables, including (a) 'the parental family', (b) 'closeness of relations between parents and children', (c) 'received support with childcare' and (d) 'informal financial transfers'.

It should be noted that the questionnaire of the second wave of Russian GGS skips certain questions on the exchange of resources, which makes impossible to construct the same variables of social capital in the second wave. Thus, we measure social capital based on 2004 data only.

Individual attitudes toward the family and children are mostly formed in childhood and significantly depend on the characteristics of parental family and the number of siblings. In the GGS, respondents were asked, with whom did they live most of their childhood, i.e. until they were 15 years old? We differentiate respondents, who lived with both parents from those who were raised by one parent or by other relatives or in institutions. Of all respondents considered in the analysis, 23 were raised by someone else than parents. The idea behind was that respondents from two-parent families could have larger initial social capital. In addition to questions about parental home during childhood respondents were asked on the number of brothers or sisters they have ever had. The number of siblings can serve as an indicator of both respondents' own attitudes toward the number of children, and their initial social network. Following the distribution of Russian families by the number of children, we allocate respondents to three groups: without siblings (one-child families), with 1 sibling (two-child families) and with 2 and more siblings (large families). It is worth recalling that Russia is known for a high prevalence of families with child and a limited number of families with 3 and more children (Frejka 2008; Zakharov 2008). In our sample, a share of respondents with two and more siblings falls from 43% of those born in 1960-69 to 28% of the cohort born in 1980-86. Finally, each of the respondents falls into one of four categories of **parental family**: (1) one/no-parent one-child family, (2) two-parent one-child family, (3) two-parent family with two children, (4) large family with three or more children.

On the whole, our approach to measure respondent's involvement in the exchange of resources follows studies of (Bühler & Fratczak 2004; Bühler & Philipov 2005; Philipov et al. 2006). In GGS, interviewees were asked whether their household received a regular help with household tasks, with childcare, whether they helped someone outside household with childcare or with personal care, as well as whether they or their partners received or gave money, assets or goods. Exchange of all types of resources was measured for a period of 12 months preceding the survey.

The preliminary analysis has shown that hardly any households receive help with household tasks from someone living outside the household. Besides, few respondents in our sample provide personal care to someone not living in the household, and none of them receive it since we excluded people with disabilities from the analysis. Thus, we limit our analysis with two types of resources – childcare and money.

The variable **'sources of informal financial transfers'** is based on the combination of answers to the following questions:

- Money received: 'In the last 12 months, have you or has (your partner/spouse) at least once, from time to time, or regularly received money, valuable things or expensive gifts from a person not belonging to your household? Please recall also, if you or (your partner/spouse) has received land, other property or inherited anything during this period?' In case of a positive response the following sub-question was asked: 'Who gave it to you or (your partner/spouse)?'

- Money provided: 'In the last 12 months, have you or (has your resident partner/spouse) at least once, from time to time, or regularly gave money, valuable things or expensive gifts to a person not belonging to your household? Please recall also, if you or (your partner/spouse) gave land, other property during this period?' In case of a positive response the following sub-question was asked: 'Who did you give or present it to?'

In Russia, most of the inter-vivos financial transfers are made from older to younger generations, i.e. from parents to children (Gladnikova 2007). Therefore, young people are more often receivers than providers in the inter-families exchange of money. However, a few respondents or their partners in our sample gave money to other people in the year preceding the survey. As mentioned in the literature review, previous studies demonstrated that not only receiving but also providing financial resources has a positive impact on reproductive intentions (Bühler & Fratczak 2004). Thus, we pool exchanges of money in both directions together and analyze the size of the network. In the final specification the size of the network included zero, one or two and more sources.

Clearly, a lack of financial transfers in the year preceding the survey does not exclude the possibility of exchange of money in the long run. Previous research (Bühler & Fratczak 2004; Bühler & Philipov 2005) emphasizes the importance of taking into account both past and potential providers of resources. Unfortunately, in the GGS there are no direct questions about potential sources of financial transfers. To overcome this shortcoming, we use an agreement with the following statement as a substitute: 'There are plenty of people that I can lean on in case of trouble' (54% of all respondents replied 'yes, it is true'). Hence, the final specification of the variable 'sources of informal financial transfers' consists of four categories: 'no sources', 'potential sources', '1 (actual) source', '2 and more sources'.

Unlike financial transfers, childcare is taken only in one direction, when it is provided to respondent's child[3]. In GGS questions about childcare are addressed to respondents with children below 14 in the households. Informal childcare, provided by respondent, his/her partner, children themselves, other

[3] In our sample, there were 173 respondents without children and 148 respondents with 1 child below 14, who helped someone with childcare. However, our preliminary analysis has shown that most of respondents with 1 child helped someone with childcare mentioned that they also received childcare from someone. Moreover, in most cases respondent helped with childcare to one person only. And, finally, we don't know the regularity of this care. All these shortcomings make difficulty in studying exchange of childcare in both directions.

people in the household or outside household, for whom caring for children is not a job, is estimated based on two questions: 'I will list various tasks that need to be done when there are children in the household. Please tell me who does this in your household. Choose an answer from the card' and 'Do your other relatives, friends or other people not professional in childcare, (also) regularly help you take care of the children?' in the given study, we analyze help in childcare from partner and other relatives separately. Grandmothers (respondents' mothers or mothers-in-law) overwhelmingly prevail among people helping respondents with childcare.

Initially we studied the effect of frequency of receiving informal childcare and of the size of the network of informal childcare providers only. However, the effect of network size on reproductive intentions and decisions was statistically insignificant, while the effect of the frequency of receiving childcare was very weak. Moreover, according to the results of previous studies (Kravdal 1996; Hank & Kreyenfeld 2003), not only access to informal childcare but also availability of formal childcare affects the probability of the next birth. Given that access to formal and informal childcare is highly correlated in our data, we combine both variables. As a result, a variable '**formal and informal childcare**' consists of four categories: 'neither formal, nor informal childcare', 'either formal or not-frequent informal', 'frequent informal', and 'both formal and informal childcare'. A category 'frequent informal childcare' describes a situation when childcare is provided to a respondent's child 6-7 times per week. We assume that this situation characterizes a high dependency of household from social network, which might be linked to a very small age of a child, child's health problems, poor health of child's parent(s) or, perhaps, to an absence of a second parent in the household. Therefore, we expect that respondents, who receive informal childcare too frequent, would less likely want to have another child or give another birth.

Since there is no question on potential sources of receiving childcare in the GGS, we cannot construct the same variable for respondents without children. To capture this group of respondents, we construct a proxy variable '**closeness of relations between parents and children**', which combines the information about the distance between adult respondent and his/her parents and the frequency of their contacts. Every twentieth respondent without children in our sample has no parents at the time of survey (both are dead, or she/he has no information about them). In half of cases respondents live together with at least one of parents. The others fall into one of three categories: they either live far from their parents (and in this case they see each other seldom), or they live close and see each other either seldom or often. As in other previous studies (Régnier-Loilier 2006; Sinyavskaya & Gladnikova 2007), in the present study, 'frequent meetings' indicate a situation when a respondent sees at least one of his/her parents at least once per week. A threshold of three hours journey, differentiating respondents living close to their parents and far from them, was chosen because there are no respondents that see parents at least once per week among those who should spend no less than 3 hours to get parents. When parents live separately, we take into account the minimum distance to one of them, and the maximum frequency of meetings with one of them.

On the whole, 7.8% of respondents without children and 14.0% of those with one child below 14 in a research sample do not report any kind of social capital measured according to above mentioned procedure. They do not give or receive financial transfers, nor get any kind of childcare, both actual and potential (i.e. respondents without children live far from their parents).

Gender equity

At the preliminary stages of our study we tested different variables of gender roles within the family[4] as well as of respondent's gender attitudes.

GGS questionnaire contains a lot of question on gender attitudes within a family and a society. Respondents were asked to agree or disagree (5-item scale) with certain statements. In the given study, we have tested the effects of the following:

- 'In a couple it is better for the man to be older than the woman';
- 'If a woman earns more than her partner, it is not good for the relationship';
- 'On the whole, men make better political leaders than women do';
- 'Women should be able to decide how to spend the money earn without having to ask their partner's permission';
- 'Looking after the home or family is just as fulfilling as working for pay';
- 'A pre-school child is likely to suffer if his/her mother works';
- 'Children often suffer because their fathers concentrate too much on their work';
- 'If parents divorce it is better for the child to stay with the mother than with the father'.

First, we have introduced some or all of them separately in the models of reproductive intentions or births. Second, we have tested the effect of the index of these attitudes, which was a sum of all questions, third, we performed the factorization of all these variables using principal-component method and Varimax rotation (with Keiser Normalization) and obtained three main factors, which explained 50.2% of variance. The results are presented in *Table A 2*.

The first factor (which explains 20.6% of variance) loads positively on the first three statements and can be interpreted as describing respondent's agreement with traditional gender positions in family and society. Moreover, this factor has a positive loading on the statement that a pre-school child suffers when his/her mother works, but a negative on the statement that children suffer when their fathers too concentrated on their work. Therefore, it can be named as '*traditional gender roles*'.

The second factor (15.4% of variance) seems to describe respondent's tendency to prefer family to paid work[5]. At the same time, loadings of this factor on the statements that correspond to traditional gender roles in family are close to zero or negative. Thus, it is possible to name it as '*strong family orientation*'.

Finally, the third factor (explains 14.1% of variance) loads positively on the statements that emphasizes financial independence of women and their legal advantages in child-rearing[6]. To our mind, this factor is

[4] For instance, in addition to gender division of homework we introduced in the model variables describing gender dimension of decision-making in couples.

[5] The factor has high positive loadings on the following statements: 'A pre-school child is likely to suffer if his/her mother works', 'Children often suffer because their fathers concentrate too much on their work' and 'Looking after the home or family is just as fulfilling as working for pay'.

associated with a soviet model of gender equality, when traditional gender division of homework and some traditional notions about marriage (as for instance an idea that it is better a man in a couple to be older than a woman) were supplemented with high involvement of women in paid employment and their enormous role in managing the household money and child-rearing. Hence, we call this factor '*women empowerment*'.

The relation between these factors and gender division of homework and childcare will be described in the next section. Used in some specifications of our models, these factors also showed no impact on reproductive behavior.

Hence, neither indicator of gender roles in decision-making, nor variables of gender attitudes had statistically significant effect on intentions and decisions to give birth. In some specifications coefficients became significant, but on the whole they were not robust. Therefore, in the final specification only the variable describing gender roles in homework and childcare are kept. But more details on gender attitudes and gender relations within Russian families are provided in the descriptive part of the 'Results' section.

GGS contains no information about time spent on childcare or homework, which poses a challenge to researchers interested in studying gender relations. Nevertheless, gender roles in homework and childcare can be analyzed based on answers to the following two GGS questions:

- Homework: 'Now I would like to ask you some questions about who does what in your household. Please tell me who does the following tasks in your household, choosing your answers from the card'. There are seven homework tasks in the list. The question is addressed to all respondents.

- Childcare: 'I will list various tasks that need to be done when there are children in the household. Please tell me who does this in your household. Choose an answer from the card'. List includes six different childcare tasks. Only respondents with children below 14 answer the question.

Answers to both question are based on the following scale: 'always respondent', 'usually respondent', 'respondent and partner about equally', 'usually partner', 'always partner', 'always or usually other persons in the household', 'always or usually someone not living in the household', and – to a question on childcare – 'children do it themselves'. We have recoded these answers so to obtain a scale when tasks always or usually are done by a woman, when they are shared or when they always or usually done by a man.

Data demonstrates that in Russian families most of homework and childcare tasks are done by women or by both partners together. At the first step we have constructed an index based on each question (homework and childcare) separately. Each index was a sum of 6 questions[7]. Then we summed up two indices for couples with one child. At the next step index values were aggregated into three broad categories describing situations when all work is usually or always done by women, when most tasks

[6] 'Women should be able to decide how to spend the money earn without having to ask their partner's permission' and 'If parents divorce it is better for the child to stay with the mother than with the father'

[7] We have applied Cronbach's alpha to test the consistency of answers about different tasks. Answers on who does small repairs in and around house were excluded from the list of homework tasks as less consistent.

(more than a half) are done by partners together, and intermediate when men are involved in less than a half homework / childcare activities. There were almost no cases of intermediate division of tasks among couples without children. Therefore, for them only 'traditional' (all work is done by women) and 'egalitarian' categories of homework division are presented. Based on the conclusions of earlier studies (Del Boca 2002; Oláh 2003; Duvander & Andersson 2006; Brodmann et al. 2007; Mills et al. 2008) we expected higher probability of intentions or decisions to have a child among couples with more active participation of men in homework and childcare.

At the same time, as Torr and Short (2004) demonstrated the most traditional couples could also have higher probability of births. To check if this is true in Russia we improved our variable of gender relations by including the dimension of satisfaction with existing distribution of tasks. The assumption was that in the most traditional couples actual division of homework should correspond to their attitudes about gender roles in the family. Given a lack of direct question about what should men and women do in families, we used a satisfaction with actual gender division of tasks as a proxy for the correlation between attitudes and reality. The shortcoming of this approach is that we do not know whether both partners are satisfied with this division. We coded respondents as 'fully satisfied' with homework / childcare division if they chose the highest (10) value on the 11-grades scale of satisfaction. Thus, in the final specification we differentiate respondents with traditional gender division of homework satisfied and not satisfied with this situation.

Due to of a limited number of observations (see *Table A 1*) both intentions and births are analyzed on the sample of respondents with and without a partner in the household. Therefore, variables '**partnership status and gender division of homework (and childcare)**' combine to dimensions – whether a respondent has a co-resident partner, and if he has, what is the gender distribution of homework / childcare tasks in a couple.

Other variables

We list all explanatory and control variables used in the multivariate analysis in *Table A 1*. Demographic variables we control for include: **respondent's sex** (for models run for both men and women), **birth cohort** and **years since the first birth**. Also, we controlled for **partner in the household** (see above).

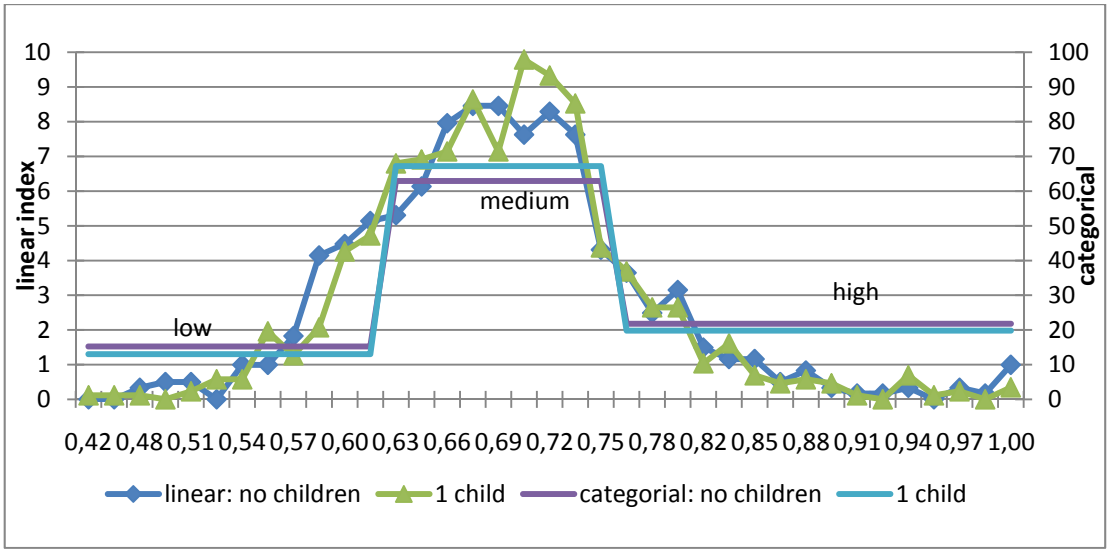
Different social and economic variables like education, incomes and employment status in the given research are substituted with one integral characteristic – **socio-economic status of household**. It is a multidimensional integral variable, which includes information about respondent's (and partner's) education, their occupation, household per capita income, savings, property, housing, and respondent's locus of control[8]. In addition to socio-economic status, we control for the **type of settlement**, because rural citizens usually have higher fertility, and for **regional** variation in **childcare coverage**.

Given the shortcomings of GGS questionnaire with respect to recording potential sources of support, we introduced an indicator of the **attitudes toward intergenerational support**. The idea is that a respondent with higher expectations about intergenerational support either would easier address for help to relatives and other members of social network, or could consider children as both a potential source of help in the future and a source of increasing social capital. In any case, we expect higher probabilities of intentions to have a child and of births among people believing in mutual responsibilities of generations in supporting family members in need.

[8] For a detailed description of the procedure of constructing this variable see (Maleva & Ovcharova 2008).

The index is based on three batteries of questions. The first was made up of five questions about who, a family or a society, should care or provide financial support for older people in need, younger people with children, pre-school and school children. The second consisted of three questions about different types of responsibility of older generations (parents, grandparents) before the younger (adult children, grandchildren). The third included five questions about commitment of younger generations (adult children) before older (parents). Respondents were asked to agree or disagree with any of these 13 statements using a 5-point scale. Answers were recoded so to make maximum values (5) correspond to the strongest orientation to family responsibilities and intergenerational support (Cronbach's alpha is 0.65). We summed up recoded answers to all 13 questions and then standardized the index to have values from 0.4 to 1 (*Figure 1*). The fact that a majority of respondents have middle values of the index reduces its analytical value. Finally, the index was aggregated to three large categories. The first group covers the lowest 33% of the range, the third – the highest 42%.

Figure 1: Index of attitudes toward intergenerational support, %



Results

The presentation of empirical results starts from descriptive analyses of gender division of homework with respect to a number of children and respondents' gender attitudes. Next, we demonstrate logistic regression results examining the factors of reproductive behavior (intentions and births) with a particular focus on the effects of social capital and gender relations variables. It is noteworthy that because of data limitations described in the previous section, empirical results presented in this paper should be regarded as tentative.

Gender relations within a family

Of all respondents with a partner and without children in our sample, 41.1% report equal division of homework. The proportion of partnerships where both partners equally involved in homework is less when there is one child in the household (*Figure 2*). However, even when homework is distributed more or less equally, childcare is provided primarily by women. In many families, fathers limit their participation in childcare with plays with children only (Korchagina & Prokofieva 2009). As a result, a share of egalitarian partnerships, classified on basis of gender division of homework and childcare, declines from 33.4% to 14.7%. In the analyzed sample, such a distribution of childcare tasks totally satisfies (satisfaction scale item 10) 57.7% of men and 30.9% of women. Similar but slightly less

proportions of men and women are satisfied with the way household tasks are divided. Higher satisfaction of respondents with unequal division of childcare explains larger share of respondents totally satisfied with traditional gender division of homework and childcare.

Figure 2: Gender division of homework among couples without children and with 1 child in 2004, %

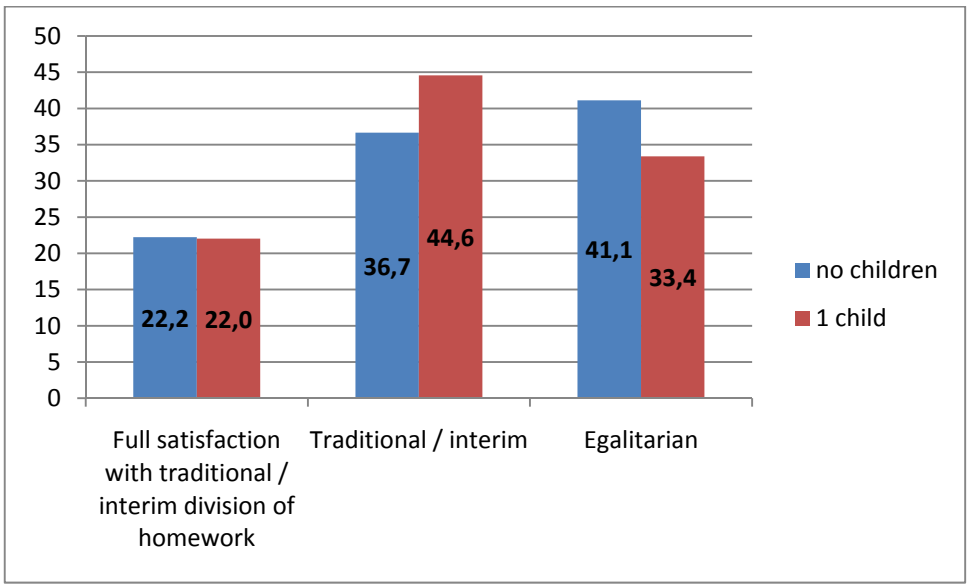
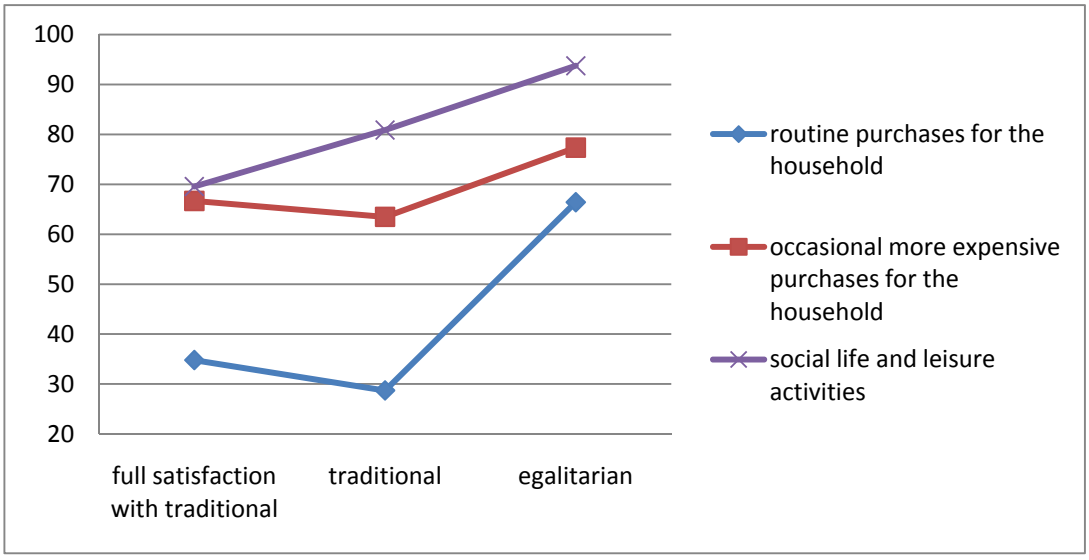


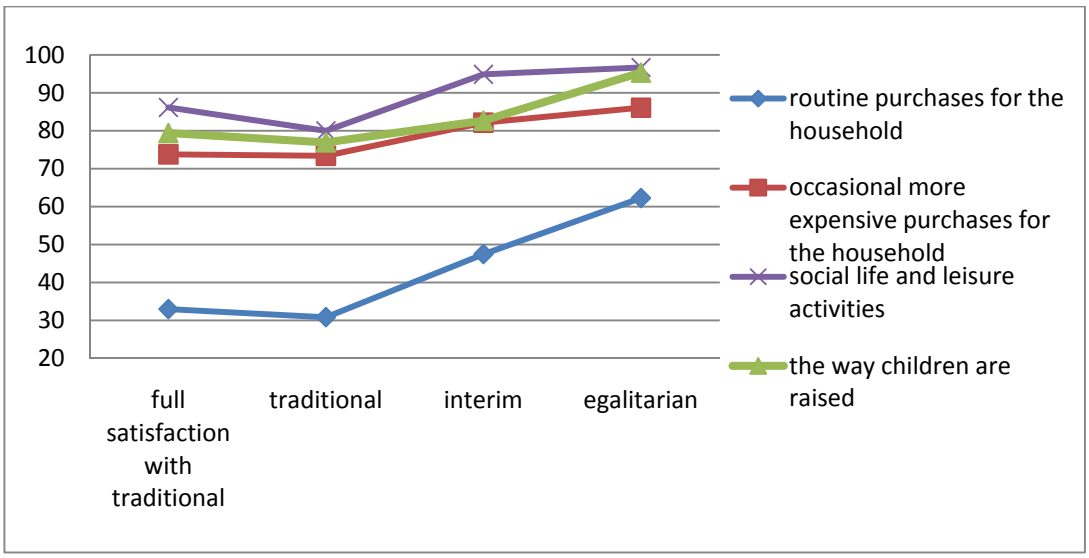
Figure 3 presents data related to decision-making in partnerships differentiated by the division of household and childcare tasks. The results suggest that in partnerships, where men are actively involved in these activities, most of decisions are made by partners together. It is particularly evident for the case of decisions about routine purchases for the household, which are often made by women in Russia. More than a half of partnerships, in which partners equally participate in household and childcare tasks, make these decisions together. But the proportion of joint decisions on the way children are raised is also higher (and exceeds 90%) among egalitarian couples. The difference between partnerships where traditional division of homework totally satisfies respondents and other traditional partnership is small, but in the latter decisions are more often made by women.

Figure 3: Joint decision-making (by both partners together) about certain issues in partnerships with different models of homework and childcare organization, %

(a) No children

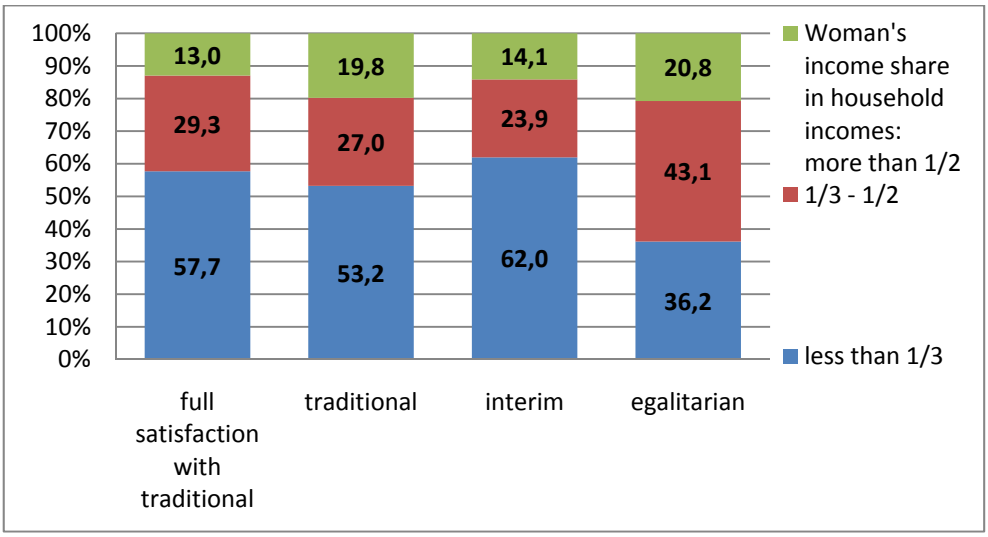


(b) 1 child



How does this distribution of homework and childcare correlate with economic and ideational variables? To what extent it is linked to the bargaining power of women? Our data indicates that women from egalitarian partnerships are much more often employed and earn higher incomes when they have 1 child than those without children. *Figure 4* shows that every fifth woman from egalitarian partnership with 1 child brings to a household budget more than a half of its incomes. Of women from egalitarian couples without children, every fourth contributes more than a half to a household budget. However, the same do 20-22% of women from more 'traditional' partnerships without children. Thus, a first conclusion is that the correlation between household and childcare tasks division and woman's bargaining power is stronger when she is already has one child. At the same time, based on cross-sectional data, this finding suffers from the problem of endogeneity: we don't know how and when partners came to this way of dividing household and childcare tasks.

Figure 4: Women's earnings power in partnerships with 1 child differentiated by gender division of homework and childcare in 2004, %



In the previous section we have presented three factors of gender attitudes titled 'traditional gender roles', 'strong family orientation' and 'women empowerment' (see also *Table A 2*). The first factor corresponds to the conservative beliefs that men should have more bargaining power in partnerships. The third one is associated with attitudes, according to which women, even if they have less bargaining power than men, should have more power in family. Moreover, in Russia women's right to decide, how

to spend the money earn, usually means their right to manage household's money. Together with a right to keep children after divorce it gives women authority over men in their daily family life. The second factor has no gender pattern and can be interpreted as describing respondent's agreement with that family life suffers from hard work of either men or women.

Comparison of mean values of factors by respondents' demographic and socio-economic characteristics presented in *Table A 3* shows a clear but obvious distinction between men and women: the former more often tend to support traditional gender attitudes, while the latter – the idea of better empowerment of women. Contrary to expectations, younger cohorts of respondents demonstrate more conservative attitudes than people born in 1974 or earlier. However, the data indicates higher heterogeneity of younger cohorts and respondents without partners, who have higher values on factors 'traditional gender roles' and 'matriarchy'. People with children tend to have both stronger family orientations and support the idea of women empowerment. The same is true for rural citizens. Finally, as Table A3 shows, respondents from middle class seem to be the most modern and work-oriented. Also, attitudes toward gender equality (negative values of both factors 'traditional gender roles' and 'women empowerment') are typical of generations born in 1974 and earlier and, surprisingly, of people with partner in household.

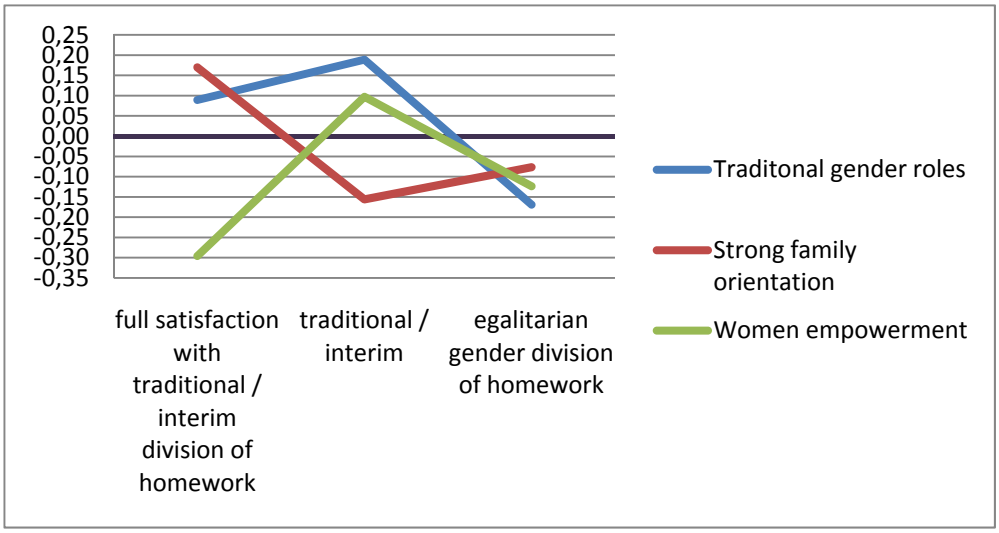
How do these ideational factors correspond to gender division of homework and childcare? As

Figure 5 shows, attitudes toward traditional gender roles, on the whole, change in the same direction as the actual way of childcare and household tasks dividing. At the same time, differences in attitudes among respondents from different types of partnerships are more pronounced when they do not have children yet. Respondents totally satisfied with traditional division of homework have the lowest values of 'women empowerment' factor and the highest values of 'strong family orientation' factor as well as positive values of 'traditional gender roles' factor. To the contrary, respondents who equally share homework with their partners seem to be more oriented toward gender equality in partnership and to have stronger orientation to work. Mean values of factors in a group of respondents from couples with traditional homework division probably indicate a typical Russian model of family, with relatively high value of paid employment (low values of 'family orientation' factor), and a combination of conservative attitudes toward relative power of partners (older and better paid men) and support of more power of women in families. The latter feature distinguishes this sort of traditional couples even among those with 1 child. On the whole, as we can see from

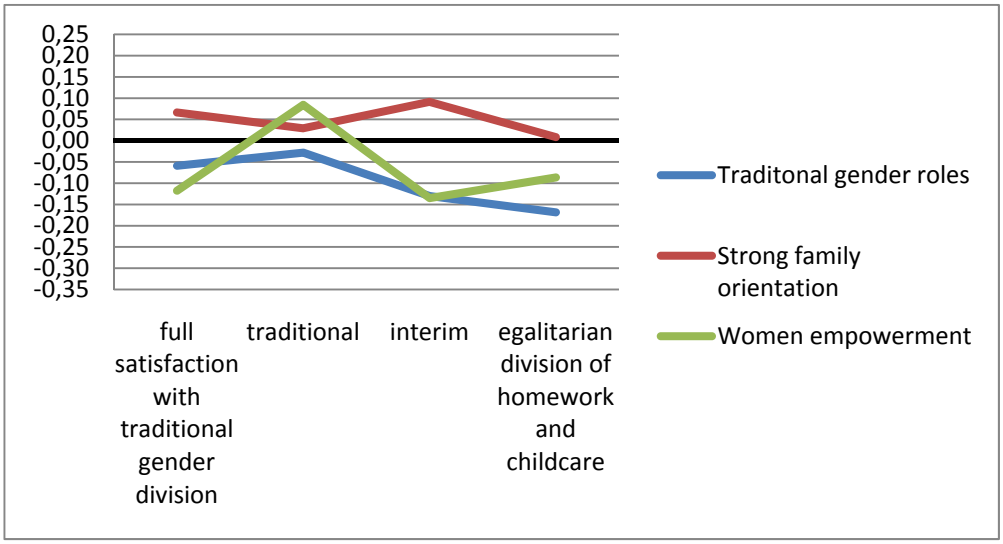
Figure 5 *(b)*, respondents from partnerships with men participating in childcare and homework tend to have more modern gender attitudes, while other differences between partnership types are less clear and not remarkable.

Figure 5: Average values of respondents' gender attitudes factors for couples differentiated by gender division of homework, 2004

(a) No children



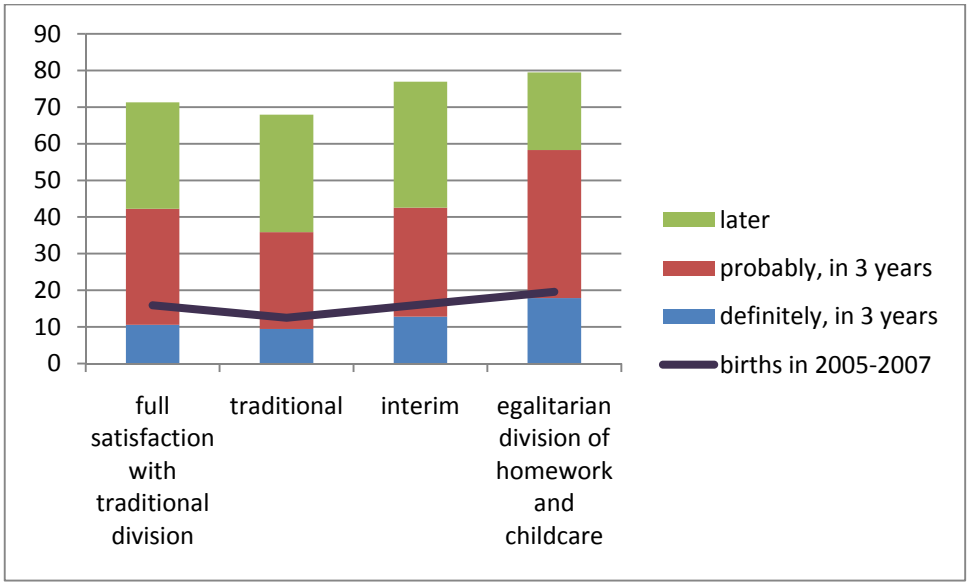
(b) 1 child



It is noteworthy that respondents from egalitarian partnerships have stronger intentions to have a second child (

Figure 6). Among them, the proportions of those who planned to have a second child definitely or probably within next 3 years were higher than among respondents from other types of partnership. As descriptive analysis shows, a share of the second births in 2005-2007 was also slightly higher in egalitarian partnerships. However, from this graph it is not clear whether this effect will be kept when we control for other possible predictors of reproductive intentions and births. The results of multivariate analysis that can shed a light on this issue are presented in the next section.

Figure 6: Intentions of men and women to have a 2nd child and 2nd births by gender relations within partnership, %



Regression analysis

Table A 4 and Table A 5 present binary logistic regression results for a series of models examining the factors of intentions to have a first / a second child and births of the first / second order. Given that models chi-square presented in the bottom of these tables are statistically significant and the percentage of correctly classified cases is rather high, all the presented models have a good fit to data.

Although we considered demographic, socio-economic and ideational variables primarily as control, the effects of some of these variables are noteworthy. Interestingly, fertility intentions and particularly intentions to become a parent are the highest among respondents aged 30-34, whereas births still occur more frequently among the youngest cohort, aged 18-24 in 2004. This gap is even more evident for women. Not surprisingly, intentions to have a child and births occur more often when a respondent has a partner in the household. The effect of a new partner (less than 3 years by 2007) is particularly high in models of first birth. Moreover, it is the most important predictor of a first birth for women. And on the whole, first births depends primarily on the parents' age and partnerships status, which seems obvious given still a very low proportion of childless couples in Russia.

The effect of socio-economic status is a bit complicated and heterogeneous. In general, it differentiates intentions to have a second child and second births more than first, which is not surprising. Moreover, the effect of socio-economic status on the probability of second birth is almost linear: the higher the status, the higher the probability. Besides, middle class respondents have also higher chances to become parents as well as higher probabilities of first births. However, the correlation between socio-economic status and first births is not straightforward, and, although some of the coefficients are statistically significant, to our mind, the observed effects might be artificial.

Coefficients of the variable 'attitudes toward the importance of intergenerational support' are not robust and often not statistically significant. In general, respondents who reject an idea of strong intergenerational support and believe that care for older or younger generations in need is more a task of society demonstrate lower probabilities of births. However, it is most probably that a link between attitudes toward family and intergenerational support and fertility is more complicated and require deeper analysis.

Finally, positive intentions to have a child within 3 years are an important predictor of subsequent births. This effect is stronger for more certain intentions, for predicting second child and for women. However, given that this issue was elaborated by us in the earlier paper (Sinyavskaya & Tyndik 2009), we do not focus on it in the given paper.

Models do not show important differences between predictors of intentions and births for both sexes and for women only. Furthermore, although we did not exclude stepchildren from the analysis in order to have more men in the sample, the effects of the first child age on the intentions to have a next child and subsequent births are almost the same for respondents of both sexes and for women only. The only difference is that the coefficient for 4-6 years since the first birth is larger and statistically significant for a sample of both men and women, which might indicate that men try to have their own biological child in the new partnership.

The main focus of this paper is on the effect of social capital and gender relations on the reproductive behavior. Social capital is empirically estimated by three variables, including parental family, participation in financial transfers and receiving childcare support or closeness of relations between parents and children, which is considered as a proxy to potential sources of childcare support in the future. The results in *Table A 4 and Table A* 5 document that the effect of parental family on reproductive behavior, at least in our sample, is very weak and statistically insignificant. On the whole, the more siblings respondent has the more likely she/he wants to have or has a (another) child.

Larger network on financial transfers has a positive impact on the intentions to have either a first or a second child. For instance, other things being equal, two and more sources of transfers increases the odds of positive intentions to become a parent by 54% ($p<0.05$), and to have a second child by 83% ($p<0.01$). However, the correlation of financial transfers with births is not straightforward. Any coefficient of this variable is significant for a first birth, and only large network increases odds of a first birth. Effects of potential sources and 1 source are not stable. Model of the second births (*Table A 5*) documents negative coefficients for any source of financial transfers. For instance, potential sources of transfers significantly ($p<0.05$) reduces the odds of the second birth for women by 59%. Thus, at least at a glance, respondents not involved in financial transfers are more likely to have second births than the others.

The variable 'closeness of relations between parents and children' is statistically significant only in the model of intentions to become a parent estimated for both men and women. But a direction of its impact is similar in the other three models presented in *Table A 4*. In short, to become a parent (mother) it is better to live separately from parents, but not too far from them. Other things being equal, the odds of wanting to have a first child for respondents having frequent contacts with their parents is 147% higher ($p<0.05$) than for those without parents and 57% higher than for those living together with parents.

The result does not show significant differences between respondents with one child receiving formal or informal childcare and those without any kind of childcare, though it confirms our hypothesis that frequent informal childcare, probably associated with certain vulnerabilities, decreases probabilities of both intentions and decisions to have a second child. In case of frequent informal childcare, predicted probability of a second birth for both men and women is 3.6% ($p<0.05$) comparing to the average 7.5% (*Table A 7*). Besides, coefficients indicate that receiving formal or informal childcare is more important for women than for men, and for the former it increases probability of a second birth, though coefficients are not significant.

On the whole, as *Table A 6* shows, an inclusion in the model of variables describing social capital does not improve substantially our ability to explain reproductive behavior, and particularly first and second births. In general, substantial part of this behavior can be explained by basic demographic and socio-economic variables. However, overall quality of the model becomes better when we introduce the gender relations variable.

The results document the significance of 'gender division of homework (and childcare)' variables in predicting reproductive behavior in all models (*Table A 4, Table A 5*), including a model for respondents with partners (Table *2*). The direction of this impact is different for becoming parents and giving another birth. Other things being equal, the highest chances to want a first child have respondents totally satisfied with traditional division of homework, the lowest – those from egalitarian partnerships. However, first births are most likely happen in partnerships with traditional division of homework, which does not fully satisfy respondents. This is true for both men and women and for women only.

Table 2: Coefficients and odds ratios for determinants of intentions to have a second child within 3 years among respondents with partners (binary logistic model)

Variables	B	Odds ratio
Parental family:		
One-parent family & no siblings		1
Two parents & no siblings	-0.35	0.71
Two parents & 1 sibling	-0.05	0.95
Large family	0.27	1.31
Sources of informal financial transfers:		
No sources of financial transfers		1
Potential sources of financial transfers	0.00	1.00
1 source	0.04	1.04
2+ sources	0.54**	1.72**
Formal and informal childcare:		
Neither formal nor informal childcare provided		1
Frequent informal childcare	-0.09	0.91
Either formal or informal childcare	0.16	1.18
Both formal and informal childcare	0.15	1.16
Partnership status and gender division of homework and childcare:		
Full satisfaction with traditional	0.30**	1.34**
Traditional		1
Interim	0.27	1.31
Egalitarian	0.79***	2.21***
Log likelihood		*-653.2*
χ^2 *(df)*		*107.1 (25)*
Observations		*1039*

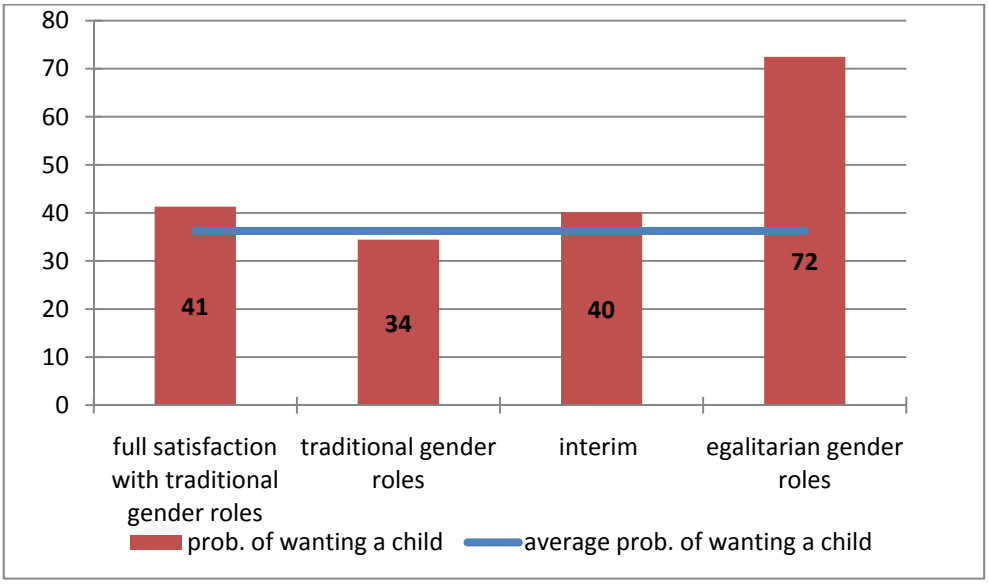
Controlled for: respondents' sex, birth cohort, time since 1st birth, household's socio-economic status, area, attitudes toward the importance of intergenerational support.
*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$

It is noteworthy that a second child is more often planned and born by respondents from couples, where men equally participate in homework and childcare. For the whole sample a predicted probability of wanting to have a second child is 36.2%, while for respondents from partnerships where household chores are distributed equally – 72.4% (*Figure 7*). Among respondents with partners, being from an egalitarian partnership increases the odds of wanting to have a second child by 121% (p<0.01) comparing to those from traditional partnerships (*Table 2*). The same is true for a chance to have a second child. The effect of being from egalitarian partnership even exceeds the effect of a new partner

(*Table A 5*). Other things being equal, a predicted probability of a second birth for respondents from egalitarian partnerships is 31.3% comparing to the average 7.5% (*Table A 7*).

The next group with relatively and significantly higher probabilities of wanting and having a second child is respondents totally satisfied with traditional gender division of homework. The odds of wanting a second child for this group is 34% higher ($p<0.05$) than for respondents less satisfied with traditional division of homework and childcare (*Table 2*). Interestingly, respondents less (not) satisfied with traditional gender roles have the lowest probabilities of either wanting or having a second child. Thus, for the second child we have confirmed the U-shaped effect of the gender relations on the fertility behavior.

Figure 7: Predicted probabilities of intentions to have a 2nd child within 3 years at different values of the variable on gender division of homework and childcare, both men and women, %



Note: other factors are taken at their means for prediction

Discussion and conclusion

Studying of factors of individual reproductive behavior under the context of low fertility in modern societies, even if it starts from economic framework, goes beyond the traditional set of indicators proposed by economic theory. More and more empirical studies focus on such variables as social capital or gender relations in order to explain how people make decisions about second or third births.

The importance of social capital for investigating fertility can hardly be overestimated in the post-socialist countries characterized by stronger intergenerational relations than many Western European countries and experienced a huge economic shock in the beginning of their transition to a market economy. The present study provides some evidence that certain dimensions of social capital do have the effect on either fertility intentions or actual subsequent births.

The results document the importance of both contacts with parents and participation in exchange of financial transfers for intentions to become parents. The importance of involvement in monetary exchanges increases with the size of the network. To the contrary, the effect of the closeness of relations with parents has an inverse U form: it is smaller when parents live far and when they live in the same household as a respondent. Both forms of social interactions relate to multi-purpose resources,

and, hence, the given study confirms previous results documented for Russia, Bulgaria and Poland (Bühler & Philipov 2005; Philipov et al. 2006; Bühler & Fratczak 2004; Bühler & Fratczak 2007).

However, we should recognize that both characteristics of social capital, although keep the same direction, are not significant for predicting actual first births. Even more important, no form of social capital, neither exchange of monetary resources, nor childcare support, is important for predicting intentions to have a second child and second births. Only a wide network on financial transfers increases intentions to have a second birth. Surprisingly, research documents no significant effect of childcare on either intentions to have a second child or second births, though coefficients report that fertility might be higher when these resources are received. Thus, on the whole, the concept of individual social capital explains better the transition to parenthood than to second births.

Although the results do not provide sufficient evidence to support our hypotheses on the importance of social capital to explain fertility behavior in Russia and on the different impact of different forms of social capital on this behavior, we do not claim the results to be conclusive. To the contrary, our conclusion is that further research is needed on this issue in Russia. At least partly a lack of significant coefficients may be explained by the insufficient number of observations and events in the analysis. Besides, it is worth recalling that empirical estimation of social capital is a very difficult task, and GGS is not particularly designed to study this phenomenon in detail. For instance, we cannot always differentiate between small and substantial support, or limited number of exchanges prevent us from further investigating the effect of the amounts of money transferred. But even within a given dataset some other specifications of social capital perhaps required. Finally, it is possible that we do not observe the effect of social capital on fertility behavior because intergenerational and interfamily exchanges exist for other purposes and not taken into account by people when they plan their decisions to have a child.

The effect of gender relations on reproductive behavior is higher and always significant in all models we used. However, it does not follow our expectations with respect to intentions and actual decisions about first births. It is not very surprising that people from the most conservative partnerships (i.e. fully satisfied with traditional gender division of homework) demonstrate the highest intentions to become parents, because in general it corresponds to their more family oriented attitudes. But surprisingly the highest probability of the first birth is observed for respondents from the middle positions in gender relations. This result need to be further explored. However, lower chances of first births for respondents from egalitarian partnerships may reflect the fact that women without children cannot fully imagine their difficulties in reconciling family and work. Besides, it might indicate the importance of some ideational variables, not included in the given research, that describe not only attitudes toward gender relations but also the relative importance of family and paid employment for a respondent.

The effects of gender relations on the second births are more convincing. A character of gender division of housework and childcare is one of the most important predictor of either intentions, or actual births. The results provide clear evidence to support McDonald (2008) hypothesis about the importance of equal gender relations in the family. The highest chances to want to have a child and to give a second birth have respondents from partnerships, where men are actively involved in homework, and, more important, in childcare. The effect of egalitarian relations within partnerships even exceeds the effect of new partnership formation, which is one of the most influential demographic factors. This result confirm to results of previous empirical research conducted in other countries (Brodmann, Esping-Andersen et al. 2007; Mills, Mencarini et al. 2008, etc.). Besides, the present study shows some evidence that the impact of gender relations on fertility decisions can be U-shaped because traditional division of

homework, if it satisfies a respondent, also positively impacts on the plans and actual decisions to have a second child.

These results have an important policy implication. First, they show the limitation of the policy attempts aimed at return to traditional gender roles, which are sometimes discussed by politicians in Russia. The study shows that only a small proportion of the most conservative families can have higher than average fertility. To the contrary, most other families with traditional gender division of homework have the lowest chances to have a second child. Most probably, in these families parents stop with one child only. Second, the study emphasizes the importance of promoting gender equity in families and of developing subsidized formal childcare and other forms of reconciliation policies that can contribute to better compatibility of motherhood and paid employment in Russia.

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Appendix

Table A 1: Number of observations and percentage distribution of explanatory and control variables used in the analysis

Explanatory and control variables	Number of observations				Percentage			
	Intentions for		Births of		Intentions for		Births of	
	a 1st child	a 2nd child	the 1st child	the 2nd child	a 1st child	a 2nd child	the 1st child	the 2nd child
Respondent's sex:								
Male	641	457	322	295	55.4	35.3	53.4	34.0
Female	517	839	281	573	44.6	64.7	46.6	66.0
Cohort:								
1980-1986	653	237	330	148	56.4	18.3	54.7	17.1
1975-1979	259	428	137	282	22.4	33.0	22.7	32.5
1970-1974	107	368	57	253	9.2	28.4	9.5	29.1
1960-1969	139	263	79	185	12.0	20.3	13.1	21.3
Years since 1st birth:								
3 and less years	-	499	-	312	-	38.5	-	35.9
4 – 6 years	-	353	-	245	-	27.2	-	28.2
7 and more years	-	444	-	311	-	34.3	-	35.8
Household's socio-economic status:								
Middle class	161	157	75	88	13.9	12.1	12.4	10.1
Periphery of middle class (lower-middle)	276	290	137	195	23.8	22.4	22.7	22.5
Neither middle nor lower	373	392	205	256	32.2	30.2	34.0	29.5
Periphery of lower class (above poverty)	303	374	156	270	26.2	28.9	25.9	31.1
Lower class (poor)	45	83	30	59	3.9	6.4	5.0	6.8
Area:								
Urban	988	962	481	593	85.3	74.2	79.8	68.3
Rural	170	334	122	275	14.7	25.8	20.2	31.7
Intentions to have a child in 3 years:								
Definitely, no	-	-	136	318	-	-	22.6	36.6
Probably, no	-	-	134	226	-	-	22.2	26.0
Probably, yes	-	-	215	240	-	-	35.7	27.6
Definitely, yes	-	-	118	84	-	-	19.6	9.7
Attitudes toward the importance of intergenerational support:								
Low	177	169	83	98	15.3	13.0	13.8	11.3
Medium	728	871	392	599	62.9	67.2	65.0	69.0
High	253	256	128	171	21.8	19.8	21.2	19.7
Parental family:								
One/no-parent family & no siblings	176	155	81	99	15.2	12.0	13.4	11.4
Two parents & no siblings	141	155	71	93	12.2	12.0	11.8	10.7
Two parents & 1 sibling	554	590	282	402	47.8	45.5	46.8	46.3
Large family	287	396	169	274	24.8	30.6	28.0	31.6

Explanatory and control variables	Number of observations				Percentage			
	Intentions for		Births of		Intentions for		Births of	
	a 1st child	a 2nd child	the 1st child	the 2nd child	a 1st child	a 2nd child	the 1st child	the 2nd child
Sources of informal financial transfers:								
No sources of financial transfers	397	514	205	348	34.3	39.7	34.0	40.1
Potential sources of financial transfers	492	516	268	335	42.5	39.8	44.4	38.6
1 source	130	138	66	89	11.2	10.6	10.9	10.3
2+ sources	139	128	64	96	12.0	9.9	10.6	11.1
Formal and informal childcare:								
Neither formal nor informal childcare provided	-	401	-	267	-	30.9	-	30.8
Frequent informal childcare	-	223	-	144	-	17.2	-	16.6
Either formal or informal childcare	-	359	-	244	-	27.7	-	28.1
Both formal and informal childcare	-	313	-	213	-	24.2	-	24.5
Closeness of relations between parents and children:								
Both parents have died/missed	61	-	29	-	5.3	-	4.8	-
Live far	229	-	79	-	19.8	-	13.1	-
Live close but see each other seldom	123	-	56	-	10.6	-	9.3	-
Live close and see each other often	200	-	103	-	17.3	-	17.1	-
Live together (at least with one of parents)	545	-	336	-	47.1	-	55.7	-
Partnership status and gender division of homework:								
No partner	846	-	324	-	73.1	-	53.7	-
New partner	-	-	115	-	-	-	19.1	-
Traditional & full satisfaction	69	-	41	-	6.0	-	6.8	-
Traditional	115	-	63	-	9.9	-	10.4	-
Egalitarian	128	-	60	-	11.1	-	10.0	-
Partnership status and gender division of homework and childcare:								
No partner	-	257	-	176	-	20.6	-	20.3
New partner	-	-	-	34	-	-	-	3.9
Traditional & full satisfaction	-	267	-	296	-	32.8	-	34.1
Traditional	-	425	-	153	-	19.8	-	17.6
Interim	-	196	-	112	-	15.1	-	12.9
Egalitarian	-	151	-	97	-	11.7	-	11.2
Total	**1158**	**1296**	**603**	**868**	**100**	**100**	**100**	**100**

Table A 2: Rotated factor matrix (factor loading) for gender attitudes

Rotated Component Matrix(a)	Component		
	1	2	3
In a couple it is better for the man to be older than the woman	**0.68**	0.00	0.21
If a woman earns more than her partner, it is not good for the relationship	**0.70**	-0.01	0.01
On the whole, men make better political leaders than women do	**0.67**	0.15	-0.18
Women should be able to decide how to spend the money earn without having to ask their partner's permission	-0.05	0.03	**0.78**
Looking after the home or family is just as fulfilling as working for pay	0.03	**0.31**	0.19
A pre-school child is likely to suffer if his/her mother works	0.13	**0.79**	-0.06
Children often suffer because their fathers concentrate too much on their work	-0.03	**0.80**	0.08
If parents divorce it is better for the child to stay with the mother than with the father	0.07	0.13	**0.71**

Table A 3: Mean values of factors

Control variables	Traditional gender roles	Strong family orientation	Women empowerment
Respondent's sex:			
Male	0.171	0.075	-0.417
Female	-0.139	-0.061	0.338
Cohort:			
1980-1986	0.014	-0.026	0.010
1975-1979	0.020	-0.001	0.005
1970-1974	-0.055	-0.043	-0.025
1960-1969	0.000	0.109	-0.001
Partnership status:			
No partner in household	0.066	-0.030	0.055
Partner in household	-0.054	0.025	-0.045
Number of children born:			
No children	0.086	-0.027	-0.061
1 child	-0.076	0.024	0.054
Household's socio-economic status:			
Middle class	-0.019	-0.128	-0.064
Periphery of middle class	0.071	-0.030	-0.015
Neither middle nor lower	0.015	0.008	0.010
Periphery of lower class	-0.071	0.076	0.030
Lower class	0.018	0.004	0.006
Area:			
Urban	0.012	-0.025	-0.009
Rural	-0.046	0.096	0.035

Table A 4: Odds ratios for determinants of intentions to become a parent/ a mother within 3 years and of first births (binary logistic model)

Variables	Intentions		Births	
	Both men and women	Women	Both men and women	Women
Respondent's sex:				
Male	1	-	1	-
Female	1.47***	-	1.24	
Cohort:				
1980-1986	1.22	1.62	9.27***	7.41*
1975-1979	3.64***	4.92***	6.43**	7.48*
1970-1974	3.18***	7.03***	2.81	1.30
1960-1969	1	1	1	1
Household's socio-economic status:				
Middle class	1.43#	1.31	1.79	1.59
Periphery of middle class (lower-middle)	1.29	1.67*	1.33	1.30
Neither middle nor lower	1	1	1	1
Periphery of lower class (above poverty)	0.96	0.91	2.04**	2.48**
Lower class (poor)	0.71	1.05	0.93	0.41
Area:				
Urban	1	1	1	1
Rural	1.30	1.25	0.43**	0.34**
Regional childcare coverage (in %)	1.00	1.01	1.01	1.00
Intentions to have a child in 3 years:				
Definitely, no	-	-	1	1
Probably, no	-	-	0.86	0.64
Probably, yes	-	-	1.68	1.59
Definitely, yes	-	-	2.72***	3.34*
Attitudes toward the importance of intergenerational support:				
Low	0.86	1.05	0.74	0.76
Medium	1	1	1	1
High	0.69**	0.67#	1.65	1.61
Parental family:				
One-parent family & no siblings	1	1	1	1
Two parents & no siblings	1.13	1.08	1.28	1.05
Two parents & 1 sibling	1.27#	1.13	1.44	2.17
Large family	1.54**	1.26	1.42	1.29
Sources of informal financial transfers:				
No sources of financial transfers	1	1	1	1
Potential sources of financial transfers	1.40*	1.07	1.05	0.73
1 source	1.48*	1.23	0.88	0.60
2+ sources	1.80**	2.35**	1.59	1.38
Closeness of relations between parents and children:				
Both parents have died/missed	1	1	1	1
Live far	2.43**	1.49	3.10	2.04
Live close but see each other seldom	2.59**	1.86	6.66	4.66

Variables	Intentions		Births	
	Both men and women	Women	Both men and women	Women
Live close and see each other often	2.47**	1.92	4.95	3.81
Live together (at least with one of parents)	1.90*	1.93	5.05	3.53
Partnership status and gender division of homework:				
No partner	1	1	1	1
New partner	-	-	13.83***	31.30***
Full satisfaction with traditional division	3.78***	3.61***	5.94***	4.18**
Traditional	2.90***	2.53***	9.30***	11.39***
Egalitarian	2.52***	2.43**	6.88***	3.94**
Log likelihood	*-697.8*	*-310.6*	*-219.7*	*-104.7*
χ^2 *(df)*	*207.3 (25)*	*82.1 (24)*	*162.5 (29)*	*103.8 (28)*
Observations	*1158*	*517*	*603*	*281*

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$; # $p < 0.15$

Table A 5: Odds ratios for determinants of intentions to have a second child within 3 years and of second births (binary logistic model)

Variables	Intentions		Births	
	Both men and women	Women	Both men and women	Women
Respondent's sex:				
Male	1	-	1	-
Female	0.95	-	1.22	-
Cohort:				
1980-1986	3.57***	5.70***	3.32**	9.09**
1975-1979	4.62***	7.77***	2.93**	5.77**
1970-1974	4.03***	4.59***	1.74	4.03*
1960-1969	1	1	1	1
Time since 1st birth:				
3 years and less	0.85	0.78	1.04	0.88
4 – 6 years	1.04	0.93	1.93**	1.06
7 years and more	1	1	1	1
Household's socio-economic status:				
Middle class	1.53**	1.47	1.97*	2.64*
Periphery of middle class (lower-middle)	1.30#	1.14	1.78*	2.12*
Neither middle nor lower	1	1	1	1
Periphery of lower class (above poverty)	0.94	0.74#	1.18	1.09
Lower class (poor)	0.47**	0.40**	0.70	0.77
Area:				
Urban	1	1	1	1
Rural	1.08	1.23	1.87***	2.12**
Intentions to have a child in 3 years:				
Definitely, no			1	1
Probably, no			1.33	0.70
Probably, yes			3.34***	3.24***
Definitely, yes			8.46***	9.06***
Attitudes toward the importance of intergenerational support:				

Variables	Intentions		Births	
	Both men and women	Women	Both men and women	Women
Low	1.38*	1.80**	0.35**	0.32*
Medium	1	1	1	1
High	1.10	0.94	1.06	0.96
Parental family:				
One-parent family & no siblings	1	1	1	1
Two parents & no siblings	0.82	1.04	0.84	0.55
Two parents & 1 sibling	0.97	1.05	1.14	0.93
Large family	1.20	1.09	1.18	1.18
Sources of informal financial transfers:				
No sources of financial transfers	1	1	1	1
Potential sources of financial transfers	1.04	1.00	0.75	0.41**
1 source	1.16	0.85	0.80	0.70
2+ sources	1.83***	1.79**	0.98	0.65
Formal and informal childcare:				
Neither formal nor informal childcare provided	1	1	1	1
Frequent informal childcare	0.86	0.79	0.37**	0.44#
Either formal or informal childcare	1.15	1.21	0.99	1.30
Both formal and informal childcare	1.09	1.08	0.78	1.30
Partnership status and gender division of homework and childcare:				
No partner	1	1	1	1
New partner	-	-	5.69**	5.17**
Full satisfaction with traditional division	2.36***	2.87***	4.34**	4.96**
Traditional	1.76***	1.67**	3.40**	3.43**
Interim	2.25***	1.67*	3.84**	3.48*
Egalitarian	3.92***	3.40***	4.49**	5.69**
Log likelihood	*-779.8*	*-481.8*	*-266.9*	*-162.8*
χ^2 *(df)*	*164.0 (26)*	*131.6 (25)*	*133.7 (30)*	*111.5 (29)*
Observations	*1296*	*839*	*868*	*573*

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$; # $p < 0.15$

Table A 6: Some statistics and likelihood-ratio tests for different specifications of the binary logistic models predicting probabilities of intentions to have a 1st/2nd child and of 1st/2nd births, both men and women

	Intentions for		Births of	
	a 1st child	a 2nd child	the 1st child	the 2nd child
Model A: *only control variables*				
Log likelihood	-645.4	-806.2	-266.8	-279.5
Pseudo R^2	0.0700	0.0646	0.1132	0.1626
Percentage of correctly classified	63.4	63.6	80.6	87.7
Model B: *control variables + a block of "social capital" variables*				
Log likelihood	-719.7	-797.3	-262.1	-271.9
Pseudo R^2	0.1021	0.0749	0.1289	0.1855
Percentage of correctly classified	66.2	65.5	80.6	87.9
Model C: *control variables + a "gender" variable*				
Log likelihood	-714.5	-788.9	-227.3	-274.5
Pseudo R^2	0.1085	0.0847	0.2445	0.1777
Percentage of correctly classified	67.2	65.7	81.4	87.4
Model D: *control + a block of "social capital" variables + a "gender" variable*				
Log likelihood	-697.8	-779.8	-222.9	-266.9
Pseudo R^2	0.1293	0.0952	0.2594	0.2003
Percentage of correctly classified	68.9	67.4	82.4	87.9
Likelihood-ratio test				
LR test B-A	51.39***	17.76*	9.46	15.26
LR test C-A	43.63***	34.68***	78.52***	10.09*
LR test D-A	95.02***	52.74***	87.98***	25.19*
LR test D-B	61.67***	34.98***	79.04***	9.93*
LR test D-C	33.35***	18.07*	8.94	15.10
*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$				

Table A 7: Predicted probabilities of intentions to have a 1st / 2nd child or of 1st / 2nd births at different values of variables representing social capital and gender relations, both men and women, %

Variables	Prob. of wanting to have a		Prob. of … birth	
	1st child	2nd child	1st	2nd
Model average	**53.2**	**36.2**	**10.5**	**7.5**
Financial transfers:				
1 source	56.5	37.6	8.9	6.9
2+ sources	61.3	48.7	15.1	8.3
Closeness of relations between parents and children:				
live close and see each other often	57.4		11.5	
Formal and informal childcare:				
Frequent informal childcare		32.2		3.6
Either formal or informal childcare		38.6		9.2
Both formal and informal childcare		37.5		7.3
Partnership status and gender division of homework:				
full satisfaction with traditional division	76.3		19.7	
traditional	71.2		27.7	
egalitarian	68.3		22.1	
new partner	–		36.4	
Partnership status and gender division of homework and childcare:				
full satisfaction with traditional division		41.3		10.2
traditional		34.4		8.2
interim		40.1		9.2
egalitarian		72.4		31.3
new partner		–		13.1
Combination of factors:				
Respondent from a family with 3+ children, has 2+ sources of financial transfers, lives close to parents and see them often and satisfied with traditional gender division of homework	86.6		30.1	
Respondent from a family with 3+ children, has 2+ sources of financial transfers, lives close to parents and see them often and has egalitarian gender division of homework	81.2		33.3	
Respondent has 2+ sources of financial transfers, 1 source of childcare and egalitarian gender division of homework and childcare		83.1		36.4

Note: other factors are taken at their means for prediction