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Attitudes, Norms and Perceived Behavioural Control: Explaining Fertility Intentions in Bulgaria

Attitudes, normes et contrôle perçu du comportement: Une explication des intentions de fécondité en Bulgarie

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Abstract In this article, we study fertility decision-making through timing parity-progression intentions. The theoretical framework builds on Ajzen's social-psychological "Theory of Planned Behavior": intentions are seen as directly dependent on three components: attitudes, norms and perceived behavioural control. We study the case of Bulgaria, a "lowest-low" fertility country. In 2002, a sample survey containing a specially designed module was conducted. This module included an implementation of our framework, with a special attention to the links between normative pressure and the social network of respondents. Results show that the three components are broadly predictive of fertility intentions. More specifically, attitudes are more relevant than norms for higher parities. Socio-economic, ideational, psychological and social capital-based factors are relevant background determinants.

Keywords Fertility intentions · Theory of planned behavior · Bulgaria · Lowest-low fertility · Norms

Résumé Dans cet article, nous étudions les décisions en matière de fécondité à l'aide des intentions d'agrandissement avec référence temporelle. Le cadre conceptuel est celui de la théorie psychosociologique du comportement prévu d'Ajzen, selon laquelle les intentions dépendent de façon directe de trois éléments : les attitudes, les normes et le contrôle perçu du comportement. L'étude concerne la Bulgarie, un pays dont la fécondité est des plus basses. En 2002, une enquête par sondage comportant un module de questions construit à cette fin a été menée. Ce

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module comprenait les éléments pour mettre en œuvre notre cadre conceptuel, en accordant une attention particulière aux liens entre la pression normative et le réseau social des enquêtés. Les résultats montrent que les trois éléments de la théorie sont des facteurs de prédiction des intentions de fécondité. Plus spécifiquement, les attitudes sont plus pertinentes que les normes pour le passage au deuxième enfant. Les facteurs socio-économiques, idéationnels, psychologiques et ceux basés sur le capital social sont pertinents comme déterminants de contexte.

Mots-clés Intentions de fécondité · Théorie du comportement prévu · Bulgarie · Très basses fécondités · Normes

1 Introduction

How do people decide to have (or not to have) kids in contemporary very-low-fertility, perfect-contraception societies? What is the weight of different types of determinants in these potentially irreversible decisions? What are the differences between the determinants of the transition to parenthood and of higher-order births? Are there gender differences in the weights of determinants? Answering these key questions helps to shed light on the motivations behind the trends that have pushed fertility towards "lowest-low" levels in countries of Central and Eastern Europe (Billari and Kohler 2004; Kohler et al. 2002; Sobotka 2004). In this article, we present the findings of a study on the determinants of fertility intentions in Bulgaria, with data from 2002, a year in which the total fertility rate had reached 1.21 children per woman (Bühler 2008; Koytcheva and Philipov 2008; Philipov and Jasilioniene 2008; Philipov et al. 2006).

Our study is based on behavioural theories of decision-making, which are increasingly used by demographers and other scholars interested in explaining fertility in contemporary societies. Most of these behavioural theories emphasise the role of either the constraints individuals and couples face, in terms of *costs*, or of their ideas—*preferences* in usual language. A well-known approach is based on economic rationality. Individuals (and couples when bargaining is not considered) have given preferences on children, which are considered essentially as *consumption goods*, as they bring directly utility to their parents. There is, in other words, fertility demand (Thomson and Brandreth 1997). Individuals' (and couples) fertility choices are affected by constraints, mostly of monetary nature. The principal fertility theory in this framework has been developed by Gary Becker and colleagues. The main emphasis of the economic approach to fertility is on *the costs and benefits* of childbearing, given specific preferences, in particular the direct and indirect costs of children (Becker 1981; Becker and Barro 1988). Cultural and ideational shifts in contemporary societies serve as another omnipresent background in fertility studies. Within the ideational approach widely known under the umbrella of the *Second Demographic Transition*, childbearing decisions are embedded in a changing societal context that emphasises increasing gender equality, rising personal autonomy from institutional and normative regulation, augmented aspirations for self-expression and self-realisation (Lesthaeghe 1995; Lesthaeghe

and van de Kaa 1986; van de Kaa 1987). Here the emphasis is mostly on *preferences*, rather than economic costs and benefits.

Although Ron Lesthaeghe has argued that the ideational theoretical perspective is complementary rather than contradictory with respect to the economic one, these two approaches are usually contrasted in current explanations. Analyses of fertility decisions conducted through the use of micro-level data usually include variables that relate to the economic and ideational perspective contrasting the two—as in an *interdisciplinary soccer game* (Lesthaeghe 1998). In this study, we take the challenge of avoiding this contrast, through the lens of fertility intentions, by combining insights from different approaches (Liefbroer 2005). We make use of a version Theory of Planned Behavior (TPB) developed in social psychology (Ajzen 1988, 1991; Ajzen and Fishbein 2005), adapted to fertility decisions and implemented in a large-scale population survey. In particular, we link the TPB to social network theories of fertility (Bongaarts and Watkins 1996; Kohler 2001; Montgomery and Casterline 1996), through a peculiar combination of data on social pressure perceived by the fertility decision-maker within her/his closest social network. Therefore, our instruments also contribute methodologically to the integration of the TPB with network-based approaches.

The focus of our analysis of fertility decision-making is on short-term, parity-specific fertility intentions. Behavioural intentions are a key scientific construct in a social-psychological perspective. Although fertility decisions, given the fact that they result from a series of successive choices (from voluntary sexual acts without contraception up to birth), are not necessarily considered simple "behavioural acts" in the social-psychological perspective (Ajzen, personal communication), the explanation of fertility intentions can shed light on the driving forces behind fertility decisions in various ways, as long as these intentions refer to a "concrete" object such as having the next child within a given time frame. To our knowledge, Warren Miller and David Pasta (Miller and Pasta 1994) were the first authors to directly address this issue, although Bongaarts (1990) had argued for the importance of measuring the intention to continue childbearing in the study of "wanted fertility". In Miller's and Pasta's model of child timing, child-timing intentions are seen as a variable to behaviour, whereas child-timing desires are seen as antecedent to child-timing intentions. Life-course studies base on the social-psychological perspective of the TPB include Liefbroer and De Jong Gierveld (1993), on the choice between cohabitation and marriage; Abrams et al. (1999), on migration; O'Connor et al. (2005) on male hormonal contraception; Billari and Liefbroer (2007) on leaving home. For what concerns fertility decisions, Schoen et al. (1999) discuss the importance of the TPB and of the focus on intentions as the key variable to understand fertility decision-making. Closely related to this study are the articles by Liefbroer (2005), who analyses costs and benefits of having a child and subsequent behaviour, by Barber (2001), who examines the attitudes towards childbearing among those oriented towards other competing alternatives in one's life, by Philipov and colleagues, who study the role of anomie and social capital in shaping fertility intentions (Philipov et al. 2006) and by Bühler (2008) on the value of children in a network-based perspective.

The remainder of this paper is structured as follows. Section 2 briefly introduces the theory of planned behaviour and discusses its application and the adaptation we propose for the study of fertility. Section 3 briefly introduces the research questions that guide the empirical part this study. Section 4 deals with the survey instruments we developed and with the analytical strategies we used. Results are presented in Sect. 5. Section 6 briefly presents a summary of findings and a discussion. The Appendix includes additional details on data collection.

2 Background: The Theory of Planned Behaviour and Fertility Intentions

The "theory of reasoned action" has been spreading from social psychology to other disciplines since the 1970s. The bulk of this theory was contained in several publications by the social psychologists Martin Fishbein and Icek Ajzen (see, for instance, Fishbein and Ajzen 1975). The theory of planned behaviour (TPB from now onwards) has been developed later as an extension of the theory of reasoned action (Ajzen 1988, 1991). The TPB constitutes our main reference here. We summarise its two key propositions, then develop the concepts that guide our study.

First, the intention to perform a specific behaviour is *the* proximate antecedent of the behaviour. In other words, TPB focuses on purposeful actions. Empirically, there is a positive relationship between specific intentions and specific behaviours. The magnitude of this relationship depends on the type of behaviour and on the time interval between intentions and behaviour. In order to understand the mechanisms of individual decision-making, in the TPB framework it is therefore necessary to understand the determinants of intentions.

Second, attitudes (i.e. perceived costs and benefits), subjective norms, and perceived behavioural control attached to a specific behaviour are the proximate antecedents of behavioural intentions. Figure 1 gives a simplified representation of the TPB, which we shall use as a theoretical background framework for this paper.

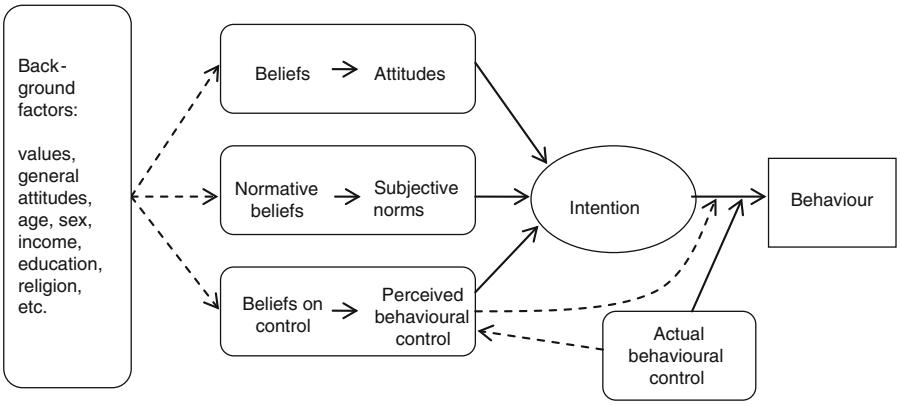

Fig. 1 A schematic presentation of the theory of planned behaviour (*Source*: Ajzen and Fishbein, 2005, p. 194)

For a more detailed discussion, we follow Fig. 1 from the right to the left, focusing on fertility intentions and behaviour.

2.1 Proceptive Behaviour

Behaviour "can be viewed as involving an action directed at a target, performed in a given context, at a certain point in time" (Ajzen and Fishbein 2005, p. 182). We have already mentioned the fact that seeing having a child as an act of "behaviour" may be questionable from the point of view of the TPB, given the complex sequence of acts that separates the decision to have a child from actual childbearing. For this reason, in our TPB-based approach to the study of fertility intentions we refer explicitly to what Miller and Pasta (1995) term *proceptive behaviour*. The central characteristic of proceptive behaviour is the interruption of the default use of contraceptives by a couple, with the purpose to achieve pregnancy and childbirth.

In the demographic literature, the timing of this proceptive behaviour is frequently approximated by the date of start of a pregnancy or the birth of a child. This approximation is evidently problematic, not only because of the delay between the decision to interrupt contraception and actual conception, but also because conceptions include unintended pregnancies that may result in an induced abortion or in an "unwanted" birth. Pregnancies and births that are completely unplanned have indeed to do with the actual ability to control fertility (which we shall discuss later). The TPB has also been applied for the study of the use of contraceptives (condoms), but in the framework of the avoidance of HIV infection (see the meta-analysis of a number of studies in Albarracín et al. 2001). In the latter case, the behaviour of interest is the use of condoms at any instance of sexual intercourse. Proceptive behaviour, on the contrary, refers rather to a choice that is kept constant for a time interval—this choice can be empirically captured from (parity-progression) fertility intentions about the very near future.

Starting from Ajzen's and Fishbein's social-psychological definition of behaviour it is clear that family size per se is a consequence of a set of sequential behaviours composed of progressions to each parity. This might explain the surprisingly low predictivity of family size preferences for individual-level behaviour (Quesnel-Vallée and Morgan 2003; Symeonidou 2000; Testa and Toulemon 2006) as well as their temporal instability (Liefbroer 2008).

2.2 Timing Parity-Progression Intentions

In the spirit of the TPB, explaining intentions is the main step towards the explanation of decisions. In order to refer to an act of "behaviour" that is specific and meaningful enough to speak about intentions, we refer to intentions to a have a birth, i.e. progressing to the next parity, in a specific (and somehow immediately thinkable) time window. In short, *timing parity-progression intentions*.

Demographic research has identified a number of requirements that intentions should meet in order to better predict childbearing behaviour—Miller and Pasta (1994, 1995) provide an extensive discussion of the relevant issues. One crucial requirement is a certain temporal stability of intentions: the longer the intentions are

not fulfilled, the less probable that the behaviour would occur, because the social environment around the individual may change. Hence, intentions become more meaningful when the period to their actual realisation is short and the time interval is specified (see also Philipov et al. 2006; Schoen et al. 1999).

Closely connected to temporal stability of intentions is their level of certainty at the time of measurement. The more certain the person is in the expressed intention to perform the corresponding behaviour, the more likely it is that the intention will be realised after a certain time period, as compared to less certain intentions (Miller and Pasta 1995; Thomson and Brandreth 1997).

Another important specification of intentions is their parity-specificity, including the parity-specificity of their determinants (Monnier 1987; Yamaguchi and Ferguson 1985). First of all, "behaviour" in the sense of Fishbein and Ajzen or Miller and Pasta can only be parity-specific. Moreover, intentions to have a first child are *de facto* intentions to become a parent, as the transition to parenthood is a distinctive one, compared to any parity transition (Hobcraft and Kiernan 1995). Intentions to have a second or a third child are affected by the previous life-course experiences of parenthood.

Childbearing intentions and the corresponding proceptive behaviour differ along an important dimension: while intentions can be individual, the outcome of the behaviour depends on a couple. The intentions of a couple are not necessarily fully congruent (Thomson 1997). Thomson points to the fact discordant intentions between partners may lead to a lower correspondence between intentions and actual behaviour (see also Miller and Pasta 1995).

2.3 Attitudes

Attitudes are a key construct in psychology and in the study of social change. An attitude can be defined as "the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question" (Ajzen 1991, p. 188). Social-psychological approaches to decision-making emphasise attitudes as a key determinant of intentions and, therefore, subsequent behaviour (Ajzen and Fishbein 2005), as opposed to more distant value orientations. Attitudes have frequently been used as explanatory factors in demographic studies of childbearing intentions and behaviour. We here briefly mention some of the directions that have been pursued and that are closely related to our study.

One important stream in the literature is related to the concept of "value of children", a concept originally introduced by Hoffman and Hoffman (1973) (see also Fawcett 1978). The basic idea in the value of children approach is to study childbearing decision-making by simultaneously considering "objective" economic factors, normative factors and psychological dispositions. The value of a child (or an additional) is linked to the needs that the child fulfils for her/his parents. Hoffman and Hoffman (1973), for instance, listed nine dimensions that contribute to determine the value of children: (1) social identity and adulthood status; (2) the expansion of the self, the link to a larger entity, the desire of "immortality"; (3)

morality, religion, altruism, group welfare, norms concerning sexual behaviour, impulsive action, virtues; (4) primary group ties, affection; (5) stimulus, novelty, amusement; (6) realisation, competence, creativity; (7) power, influence, efficacy; (8) social comparison, competition; (9) economic utility. Friedman and colleagues (Friedman et al. 1994) criticise the nine-typologies list of Hoffman and Hoffman because of its omni-comprehensiveness. By analysing childbearing decisions in contemporary contexts, where the economic utility of having children is not supposed to play an important role, Friedman and colleagues link the value of children to the capacity of a child to "reduce uncertainty" in a potential parent's life. Nauck and colleagues (Nauck 2001, 2007; Nauck and Klaus 2007) emphasise the importance of two key dimensions in the determination of the value of children: the economic-utilitarian value (e.g. linked to the economic contribution of children to the well-being of the household, to their contribution in household chores, to their role in the provision of care to elderly parents), and the psychological-emotional value (e.g. linked to the reinforcement of emotional ties, and to expressive stimuli following the interaction with children).

In a series of papers, Miller and Pasta (Miller 1994, 1995; Miller and Pasta 1993, 1994, 1995) present and apply a detailed theoretical model in which "childbearing motivations" affect fertility desires, intentions and behaviour. In turn, childbearing motivations are influenced by biologically based dispositions that may be partially inherited as well as influenced by early life-course experiences. Miller and Pasta assume that motivations affect both the intensity of desire for children and the number of children desired; together with attitudes and beliefs concerning child timing, these factors translate into actual child-timing desires and intentions. The "Childbearing Questionnaire" originally proposed by Miller (1995) measures childbearing motivation by separating "Positive Childbearing Motivation" and "Negative Childbearing Motivation". Among the positive childbearing motivation some subscales are identified concerning "(1) joys of pregnancy, birth and infancy; (2) traditional parenthood; (3) satisfaction of child rearing; (4) feeling needed and connected; (5) instrumental values of children", among the negative childbearing motivation the subscales identified concern "(1) discomforts of pregnancy and childbirth; (2) fears and worries of parenthood; (3) negatives of child care; (4) parental stress" (Miller 1995, p. 476).

The use of attitudes to childbearing in a TPB-based framework follows much the same path as that of Miller's childbearing motivations (Liefbroer 2005). In the TPB, attitudes relate to the expected consequences of the behaviour of interest and are thus closely associated with behavioural beliefs (i.e. beliefs that the behaviour will bring about certain desirable or non-desirable consequences). When following a TPB-based approach, attitudes should refer strictly to the behaviour in question, and related to the decision-maker. Moreover, there should be consistency in timing: attitudes should refer to the same time interval to which intentions refer and for the same parity. For instance, when intentions refer to having a(nother) child within the next 2 years, attitudes should refer towards the expected consequences of having a child within the same period.

2.4 Norms

The recent demographic literature on social interaction and fertility sees normative pressure as a key influential element in childbearing decisions. Normative pressure can be detected within an individual's network of relevant others, and more specifically it is the "perception of social influence" that is supposed to have an impact on reproductive behaviour (Bernardi 2003). Even if most of this literature is focused on contraceptive and reproductive choices in developing countries (Bongaarts and Watkins 1996; Kohler 2001; Montgomery and Casterline 1996), there is some evidence that normative pressure may play a role also in low and lowest-low fertility contexts. For instance, Rindfuss et al. (1988) put the normative imperative to become a parent as a central point in their analysis of the transition to first births, and they explicitly connect this to religious norms. Montgomery and Casterline (1996) list four cases where norms as a source of social influence might be important in the study of contemporary US fertility. Focusing on a lowest-low fertility context, Bernardi (2003) presents qualitative evidence on the channels through which normative pressure may drive the transition to parenthood in Northern Italy. Liefbroer and Billari (2009) document the presence of norms related to the timing, sequencing and quantum of fertility for the Netherlands, one of the most individualised and secularised societies in the world.

Most of the literature on recent demographic developments has assumed that there is a vanishing impact of normative pressure on childbearing choice. The idea of "Second Demographic Transition" proposed by Lesthaeghe and Van de Kaa (Lesthaeghe 1995; Lesthaeghe and van de Kaa 1986; van de Kaa 1987) puts the manifestation of individual autonomy from sources of normative pressure as one of the focal points when studying demographic behaviour. The increase in individual autonomy that started in North-Western Europe during the 1960s is assumed to spread to other parts of the Western world. Other researchers who focus on specific contexts put a different weight on the importance of social norms. Reher (1998), Micheli (2000) and Dalla Zuanna (2001) underline the importance of social networks characterised by strong family ties in shaping demographic choices in Southern Europe. Philipov et al. (2006) discuss the impact of social capital on fertility intentions in Bulgaria and Hungary, and Bühler and Philipov (2005) give an extensive theoretical discussion on social capital related to social network and on its significance for the formation of fertility intentions in low fertility contexts (see also Bühler 2008).

In the TPB, normative beliefs "are concerned with the likelihood that important referent individuals or groups approve or disapprove of performing a given behavior" (Ajzen 1991, p. 195). Subjective norms are normative beliefs weighted by the importance attached to the approval or disapproval of relevant others. The behaviour of interest has to be consistent with the one for which intentions and attitudes are elicited. Surprisingly, the literatures on social networks and TPB have not yet come together. In what follows, we will define the importance attached to the approval or disapproval of relevant others by adopting a social network approach.

2.5 Perceived Behavioural Control

In the TPB, *actual* behavioural control relates to the ability to perform a given behaviour. Most of the literature that focuses on fertility is concerned with studying the impact of constraints that limit the ability to have a child, focusing for instance on income and wealth constraints, labour force status, education, housing and health. As Schoen and colleagues state: "Control encompasses both internal and external constraints. For example, fecundity exemplifies an internal constraint to fertility, and the existence of an agreeable partner represents an external constraint" (Schoen et al. 1999, p. 791).

In the TPB, according to the scheme presented in Fig. 1, actual behavioural control moderates the impact of intentions on behaviour. As mentioned earlier this directional link is out of the scope of the present study. However, actual behavioural control influences *perceived behavioural control*. Also according to Ajzen (1991), this concept is similar to Bandura's (1977) *perceived self-efficacy*, which is "concerned with judgments of how well one can execute courses of action required to deal with prospective situations" (Bandura 1982, p. 122). In past analyses of the determinants of childbearing intentions, perceived behavioural control has not been considered as a potential factor explaining intentions besides objective measures of control (which could be considered as measures of actual behavioural control).

2.6 Background Factors

According to the TPB approach, background factors influence the construction intentions (and therefore behaviour) only through their effect on attitudes, subjective norms and perceived behavioural control. In Fig. 1, this influence is depicted with dotted lines, as the selection of factors depends on theories that lie outside, i.e. are logically prior to, the TPB. These may include, in our case, for instance, economic theories (emphasising income, wealth, education) and ideational theories of fertility (emphasising religion, value orientations), as well as general demographic factors such as gender, age, cohort.

Ajzen and Fishbein (2005) classify background factors in three groups. First, "individual" factors, such as personality traits, mood, emotion, intelligence, values, stereotypes, general attitudes, experience. Second, "social" factors, such as education, age, gender, income, religion, race, ethnicity and culture. Third, "information" factors, such as knowledge, media, and intervention. Empirically, some background factors can have a direct impact on the formation of intentions, even when the TPB proximate determinants are taken into account. If the TPB is "true", under ideal conditions of measurement and operationalisation of the components, the direct effect of background factors should be absent. In what follows we do not assume to be in this "ideal" position. Therefore, we include the background factors that may have both a direct and an intermediated effect on fertility intentions.

3 Research Questions

Our analyses will focus on the case of Bulgaria, and they will be guided by a set of research questions which also bear on this specific context. In this section, we briefly discuss the three questions we would like to tackle empirically.

Q1. Do attitudes, norms and behavioural control simultaneously influence fertility intentions? Does this influence hold once background factors are controlled for?

Our first question relates to the fact that factors of the TPB can be useful, simultaneously, in the study of parity-progression fertility intentions in a context of high-level contraception (Carlson and Omori 1998) and lowest-low fertility. A further specification of this question is related to the importance of these factors as intermediate factors, i.e. that attitudes, subjective norms and perceived behavioural control influence fertility intentions also when background factors are controlled for. Two other studies have focused on the TPB or on parts of its framework (Liefbroer 2005; Schoen et al. 1999). However, differently from previous studies our question focuses on all three factors, and deals with a lowest-low fertility context.

Q2. Is the effect of these factors parity-specific? In particular, is the relative importance of attitudes versus norms increasing with parity?

Our second question relates to the parity-specificity of the impact of attitudes, norms, and perceived behavioural control is parity-specific. More precisely, we shall distinguish between the intention to have a first child and intentions to have a second child, as progression to the first and second birth are the key ones in the Central and Eastern European pattern of lowest-low fertility (Billari and Kohler 2004; Kohler et al. 2002). In particular, we would like to find out whether first births are still influenced by normative pressure, i.e. a general pressure to become a parent in a society where childlessness is still a rarity (Koytcheva and Philipov 2008; Philipov and Jasilioniene 2008; Philipov et al. 2006), while second births are more influenced by attitudes, giving space to economic considerations or to a "Second Demographic Transition" desire of autonomy. Additionally, we also speculate that perceived behavioural control matters more for second births, as learning might matter for this factor.

Q3. Is the effect of these factors gender-specific? In particular, are women relatively more influenced from social pressure with respect to men?

Our third question relates to the gender-specificity of *the impact of attitudes, subjective norms and perceived behavioural control*. In particular, in a gender-asymmetric society like Bulgaria, one might think that women are more influenced by normative pressure than men. Kotzeva (1999), for instance, finds a convergence between the "socialist Amazon" ideal (a woman who is a heroin of a socialist modernisation project) and the ideal of a woman as a mother and carer of children in post-socialist Bulgaria.

Q4. If attitudes, norms and perceived behavioural controls are proximate determinants of intentions, on which factors do they depend?

Our fourth research question is conditional on a generally positive answer to Q1 at least. If the TPB-related proximate determinants of fertility intentions are indeed influential, what are the more distant factors that influence them? For simplicity, and

adopting a simple "interdisciplinary soccer game" perspective (Lesthaeghe 1998), we could oppose economic (or, better socio-economic) factors such as education, work status, income, housing status to ideational factors, such as value orientations, religion, and general childbearing preferences. Of course, all these factors may have a simultaneous effect. We shall explore this question empirically, allowing for a broad set of factors associated with the proximate determinants of fertility intentions.

4 Survey Instruments and Analytical Strategy

In our analyses, we use data from a survey carried in Bulgaria in 2002, with the general purpose of studying family formation and fertility. In this survey, we included items related to the approach described in Sect. 2. The sample included 10,003 men and women aged 18–34 (in completed years). The sample included single individuals and individuals in partnership, including the latter also if beyond the upper age limit. The sample was representative of the resident population, stratified by age, marital status, and region. The sampling frame was the population census carried out in 2001, as well as the civil registration system existing in this country. The upper limit of the age span was selected such that the major family formation events should have taken place or be planned by that age. Indeed, Bulgaria is among the European countries with a very low age at first childbirth; in 2002 the mean age at motherhood was 23.9 years.

The survey, financed by the Max Planck Institute for Demographic Research, aimed specifically at explaining fertility in this lowest-low fertility, transition society. It included a number of items derived by the TPB for the study of fertility—modified versions of these items were later embedded into the questionnaires of the Generations and Gender Programme (Vikat et al. 2007). We report the original questions in Appendix 1. All questions referring to parity-progression intentions referred to a period of 2 years. We now describe the items we developed more in detail. (Descriptive results are presented in Appendix 2.)

4.1 Timing Parity-Progression Intentions

The key question used in the survey was: "*Do you intend to have a child during the next 2 years*?" In this formulation, the question was asked to childless respondents. Respondents who had at least one child were asked the same question with the modification "*another child*" instead of "*a child*". Pregnant women, or men whose partner was pregnant, were asked "*Do you intend to have another child during the next 2 years besides the child you are expecting*?" In all versions of the question, the answer was selected among 4 categories of certainty: "Definitely yes; probably yes; probably not; definitely not".

4.2 Attitudes

The main survey question on attitudes towards parity-progression within the next 2 years (question ATT1 in Appendix 1) includes items that evaluate the

consequences either as positive, or "benefits" (items C, F, I, J, K, L) or as negative, or "costs" (items A, B, D, E, G, H). This set of questions is similar to the one used by Liefbroer (2005).

The TPB usually considers a weighted sum of attitudinal beliefs multiplied by their strength and Liefbroer (2005) analysed attitudes through each separate item. In this study, we decided to consider attitudes as latent factors emerging from actual answers. Therefore, we carried out a series of factor analyses for the four subsamples we study: first or a second child for women, first or a second child for men. In each of the four cases, there were only two principal factors, and they were separating items with positive ("benefits") and negative ("costs") content. The retention of these two factors was motivated by the observed eigenvalues. For example, in the case of females' intentions to have a second child, the largest three eigenvalues were correspondingly 2.51, 1.73, and 0.52. In Table 1 we report factor loadings for the two retained factors as well as the uniqueness of the 12 items.

4.3 Norms

In our study norms are measured using a network-based approach, which we believe constitutes a substantial improvement over the standard TPB measurement of subjective norms—moreover measurement is consistent with fertility theories based on social interactions. First, the network of relevant others for each individual is generated (using a standard approach to network name generation). Second,

Table 1 Factor loadings and uniqueness of 12 items of attitudes towards the intention to have a second child, women

If you would have a child during the next 2 years, irrespective of whether you really wish to have a child or not, to what extent do you agree that this would:	Factor 1 ("benefits")	Factor 2 ("costs")	Uniqueness
A. Increase your economic difficulties	−0.088	0.423	0.722
B. Decrease your chances in your working career and/or higher education	−0.056	0.403	0.767
C. Increase your security that at old age there is someone to care about you	0.435	0.018	0.696
D. Increase uncertainty in your life	−0.125	0.350	0.632
E. Increase the physical burden for you because of the pregnancy, the care for the baby, or breastfeeding	0.060	0.591	0.578
F. Increase joy and satisfaction in your life	0.261	0.059	0.640
G. Increase worries and preoccupations in the course of your daily life	−0.031	0.678	0.529
H. Decrease time for your personal interests, for contacts with friends	0.036	0.632	0.592
I. Increase certainty in your life	0.528	−0.132	0.511
J. Increase the closeness between you and your partner	0.804	0.004	0.339
K. Increase the closeness between you and your parents and relatives	0.779	0.014	0.393
L. Mean that a part of you is continued into the future	0.394	0.041	0.617

respondents are asked to name up to five persons "whose opinion you value most highly when you make decisions about your private life", using the network list (Appendix 1, NOR1). Third, for each of these persons, information is gathered on (1) the number of children (see, e.g. Kohler 2001); (2) their approval or disapproval concerning the respondent having a(nother) child within the next 3 years, mimicking the standard TPB-type of subjective norm data collection (NOR2 and NOR3). In fact, the inclusion of an "objective" datum as the number of children of relevant others cannot really be considered consistent with the "subjective norms" idea of the TPB—so we prefer to use "norms" only when speaking of both factors.

In order to construct a measure of subjective norms, we first exclude the spouse from the list of influential people (as joint decision-making is different from normative persons). The number of influential others is reduced to at most 4. Then, we create a single variable by summing the responses concerning approval or disapproval for all influential others. A second variable is created as the average number of children relevant others have.

4.4 Perceived Behavioural Control

Questionnaire items used to derive measures related to the perceived behavioural control factor of the TPB are contained in two separate questions (Appendix 1, PBC1 and PBC2). The first question concerns the extent to which the decision to have (another) child would depend on each of the listed circumstances. The second question concerns the perceived ability of the respondents to control the same circumstances. Perceived behavioural control is therefore higher when the person perceives an item as a significant one, being able to control it. We first create a variable for each item separately. Given the low frequency of some extreme answer categories, we collapse them so that this variable can take three values: $+1$ for the case of full control (both PBC1 and PBC2 are equal to 3 or 4), -1 for the case of the worst situation (PBC1 is equal to 3 or 4, while PBC2 is equal to 1, 2 or 3), and 0 for the other cases. The variable used in subsequent analyses is equal to the sum of the four item-specific variables.

4.5 Background Factors

We briefly discuss the background factors that we use in our analyses. On the one hand, these factors are controls for the answer to the first question (i.e. whether the effect of attitudes, subjective norms and perceived behavioural control on parity-progression intentions persists when other factors are controlled for). On the other hand, these factors shed light on whether the TPB-based implementation we discussed is fully self-sufficient and leaves out the direct effect of background factors.

We use the same background variables as in Philipov et al. (2006)—we refer to that article where these variables are the main explanatory tools for a detailed discussion of data, while here we present a short description. In addition, we add the ultimate desired number of children, as from the decision-making model of Miller and Pasta (1994).

Background demographic variables include age, union status, and number of siblings. Age is categorised in groups (18–19, 20–24, 25–39, 30 and higher). Union status includes the categories single, married, and cohabiting. The number of siblings is categorised as 0, 1, and 2 or more (the latter might also represent a measure of fertility preferences, as long as these preferences are intergenerationally transmitted).

Social and economic variables include educational attainment, housing status, employment status, and household income. Educational attainment is categorised in three groups: below secondary, secondary, and above secondary. Housing status is measured in square meters of the dwelling. Employment status has four categories: (i) neither works nor studies; (ii) in education (although may work at the same time); (iii) works in private sector; (iv) works in public sector (work in public sector is considered as more secure than work in private sector). Household income per person is equivalised. The variable is categorised in four quartiles, estimated separately for each one of the four categories which we study.

A further group of variables refers to values, psychological and network-oriented attributes of the respondent. The desired number of children is a proxy for the desires related to the behaviour of interest (Miller and Pasta 1994). Religiosity is measured with a simple question: being religious or not. The list of variables includes one general attitude, stated with the question "Do you agree with the statement: parents have a life of their own and should not be asked to sacrifice their own well-being for the sake of their children?" The answers used a Likert 5-category scale which was reduced to three: agree, neither agree nor disagree, disagree. Psychological well-being is measured with two questions: "During the past month have you ever felt very lonely or remote from other people?" and "During the past month have you ever felt depressed or very unhappy?", with 5-scale answers. The variables that present the two questions were factorised and the principal factor was used. The variable used in the models measures increase in psychological well-being. Disorientation could be of significance during times of sweeping societal changes as those in Bulgaria. It was measured using three questions: "I have no influence over my everyday affairs"; "Life is so complicated nowadays that most of the time I don't know what to do"; and "No one cares what happens to other people" (all on agreement scales). One principal common factor was extracted and used in the analysis. The variable used in the models is inversely related to disorientation. The final variable is exchange of help as a measure of social capital (for details see Bühler and Philipov 2005). This variable combines "help received" by others and "help given" to others. The variable "help received" was based on a combination of answers to two questions about resources in the woman's social network: "During the last 2 years, how many people have given you substantial, important help or support?" and "If you need substantial help and support, how many people can you ask for this?" The answers to the two questions were summed. "Help given" was constructed using analogous questions. "Help received" and "help given" were highly correlated and for this reason they were factored and one principal factor named was used.

4.6 Analytical Strategy

Our empirical analyses are based on two types of statistical models. First (to answer Q1, Q2 and Q3), we use a series of ordered logistic regression models, in which parity-progression intentions are the dependent variable. Models are run separately for males and females, as well as for the intention to have a first child and the intention to have a second child. When the proportional odds hypothesis is rejected, we add response-specific effects. In all models, background factors are controlled for. In a second group of models, we study attitudes, norms and perceived behavioural control as dependent variables (to answer Q4). The average number of children of important others cannot be analysed as dependent on the background factors we consider, and therefore it is not included. In this set of models, we use a series of simple Ordinary Least Squares (OLS) regression.[1]

5 Results

5.1 Proximate Determinants of Parity-Progression Intentions

Results from the four of models on fertility intentions are shown on Table 2. These models include background factors as control variables along with attitudes, norms and perceived behavioural control. Explanatory variables are standardised in order to be able to compare the magnitude of their effects.

Attitudes (both "benefits" and "costs") and subjective norms are consistently and significantly relevant in explaining fertility intentions. Both the benefit and the cost side of attitudes matter in the expected direction. The number of children of important others as an "objective" measure of social influence or learning is significant only for women, with respect to their intention to enter into parenthood. Perceived behavioural control has a parity-specific effect. For first births, where the proportional odds hypothesis is not rejected, perceived behavioural control has no significant effect. For second births, this hypothesis is rejected, and when we consider response-specific effects, perceived control has a significant effect, i.e. the higher the perceived behavioural control, the more certain become intentions. In general, therefore, we give a positive answer to Q1: attitudes, norms and behavioural control have an independent effect on fertility intentions, even when controlling for the effect of background factors.

When we compare the relative magnitude of different effects, in the case of intentions for a first child, the dominating factor is subjective norms, which has a larger coefficient with respect to any other variable. In the case of intentions for a second child, the dominating variable for women is the one composed from the positive attitudes towards a birth, while for men it is perceived control. In general,

[1] We also used Seemingly Unrelated Regression Equations (SURE) to allow for the correlation of the error term across the various equations. Results were similar to the ones obtained by OLS, therefore we limit ourselves to OLS.

Table 2 Coefficients of a series of ordered logistic models on intention to have a first or second child within the next 2 years

	Intention to have a first child within the next 2 years				Intention to have a second child within the next 2 years			
	Women		Men		Women		Men	
	Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value	Coefficient	*p*-value
Attitudes								
"Benefits" factor	0.22	**0.00**	0.11	**0.02**	0.34	**0.00**	0.13	**0.02**
"Costs" factor	−0.15	**0.00**	−0.12	**0.01**	−0.29	**0.00**	−0.23	**0.00**
Norms								
Opinion of important others	0.30	**0.00**	0.16	**0.00**	0.21	**0.00**	0.19	**0.00**
Children of important others	0.15	**0.01**	0.07	0.11	0.00	0.95	−0.03	0.55
Perceived behavioural control	−0.04	0.46	0.02	0.67				
Probably no versus certainly no					−0.10	0.13	−0.16	**0.03**
Probably yes versus probably no					0.12	0.06	0.13	0.07
Certainly yes versus probably yes					0.28	**0.01**	0.25	**0.02**
N	1,479		2,081		1,433		1,293	

Explanatory variables include attitudes, subjective norms and perceived behavioural control (coefficients for background factors not displayed)

Note: bold type indicates $p < 0.05$. Models controlled for background factors (see Table 3)

these results are consistent with Q2: the relative importance of attitudes (versus norms) increases from parity 0 to parity 1.

For what concerns gender differences, there are is systematic pattern, although the coefficients for subjective norms are consistently higher for women with respect to men. In general, the effect of attitudes, norms and perceived behavioural control of childbearing intentions is not gender-specific—we can answer Q3 negatively.

5.2 Factors Associated with Attitudes, Subjective Norms and Perceived Behavioural Control

The second set of models includes OLS regressions in which attitudes, subjective norms and perceived behavioural control are dependent variables, and background factors determine the set of explanatory variables, for first births (models for second births are not displayed here—they give similar results and are available upon request from the corresponding authors). Estimated coefficients are displayed in Table 3 for women, and Table 4 for men. In our models, we are interested in

Table 3 Effect of background factors on proximate determinants of intentions to have a first child within the next 2 years, OLS regression coefficients, women

Background factors:	Positive attitudes	Negative attitudes	Subjective norms	Perceived behavioural control
Age (ref. 30 and higher)				
18–20	−0.10	**0.41**	**−0.65**	−0.01
20–24	−0.04	0.12	**−0.23**	0.01
25–29	0.09	**0.20**	−0.09	−0.03
Union status (ref. married)				
Single	**−0.20**	**0.26**	**−0.27**	**−0.23**
Cohabiting	0.03	−0.02	−0.05	0.01
Number of siblings (ref. 0)				
One	0.05	**−0.17**	**0.15**	**−0.17**
Two and more	0.01	−0.19	0.07	**−0.22**
Desired number of children	0.07	**−0.07**	**0.08**	0.00
Education (ref. secondary)				
Below secondary	0.17	−0.04	−0.06	0.01
Above secondary	−0.11	0.00	0.10	0.06
Dwelling size	−0.06	**0.12**	−0.06	**−0.22**
Employment (ref. employed in public sector)				
Does not work nor study work	**−0.22**	−0.15	**−0.25**	0.19
In education	**−0.31**	**0.28**	**−0.43**	0.18
Works in private sector	**−0.24**	0.01	**−0.17**	0.16
Household income (ref. lowest quartile)				
Second quartile	−0.10	−0.06	−0.06	0.15
Third quartile	**−0.20**	0.09	−0.04	0.07
Fourth quartile	**−0.20**	0.05	−0.10	**0.24**
Religion (ref. religious)				
Not religious	**−0.12**	**0.10**	**−0.10**	−0.07
Parents have a life of their own (ref. disagree)				
Neither agree nor disagree	**−0.18**	−0.11	0.00	−0.09
Agree	**−0.16**	−0.05	0.06	−0.02
Psychological well − being	**0.10**	−0.03	0.04	**0.09**
Disorientation	**−0.14**	**−0.15**	**−0.07**	**0.13**
Exchange of help	0.02	**−0.18**	**0.33**	**0.12**

Note: bold type indicates $p < 0.05$

exploring associations rather than causal effects. While the literature so far has explored the (direct) effect of these background factors on intentions, we decompose their effect by looking at how they are mediated by the various components of the model discussed in Fig. 1.

Let us first look at attitudes, starting from women (Table 3). Age is included purely as a control variable and we will not discuss its effect. For what concerns attitudes ("benefits" and "costs", models in the second and third column) union status, number of siblings and childbearing desires are significantly associated with attitudes. This is also true for socioeconomic factors such as dwelling size, education and employment status. As one could expect, ideational factors (religion, value orientations) have a significant effect. Psychological factors and social capital are also influential. For men (Table 4) the picture is more or less similar, with the exception of no effects for number of siblings or desired number of children (which might indicate that limits to postponement of childbearing are less relevant for men than they are for women). In general, attitudes towards parity-progression are associated with an extremely variegated set of influential factors, as in the complex models of Miller and Pasta (1994, 1995).

For what concerns subjective norms, key factors here seems to be (1) social capital (Bühler 2008; Bühler and Philipov 2005)—with exchange of help sustaining positive subjective norms; (2) sequencing norms on the other side, with relevant others pushing women and men who are in education not to have a child (Blossfeld and Huinink 1991); (3) religiosity, consistently with interpretations emphasising the importance of secularisation, such as the "Second Demographic Transition" theory. Another factor that is consistently (and negatively) associated with subjective norms is disorientation (Philipov et al. 2006). These factors are relevant both for women and for men. For women, there is a positive association with desired family size (though the causal link probably runs the other way around), for men a negative association with dwelling size. These results show that normative pressure from relevant others could turn from being pro-childbearing, as it is supposed to be the case with traditional societies, to being in favour of fertility control, when this is relevant for life-course situations (e.g. education) or for the economic situation of potential parents.

Finally, perceived behavioural control, besides being tied for obvious reasons to union status, is mostly associated with economic factors, with dwelling size showing up consistently for women and men, education for men and income for women. Social capital matters here, too, while ideational factors have a minor effect. The association with psychological well-being and disorientation shows that perceived behavioural control is a vector through which these factors might influence actual fertility choices—as in general argued by some authors (Philipov et al. 2006).

6 Summary and Discussion

In this article, we presented a framework for the analysis of fertility decision-making which focuses on timing parity-progression intentions. This framework was built starting from the social-psychological Theory of Planned Behavior (TPB) (Ajzen 1988, 1991). The main point of departure is that, in high-contraception societies, and especially in lowest-low fertility context, contraception is the default behaviour, and fertility behaviour can be seen as proceptive

Table 4 Effect of background factors on proximate determinants of intentions to have a first child within the next 2 years, OLS regression coefficients, men

Background factors:	Proximate antecedents			
	Positive attitudes	Negative attitudes	Subjective norms	Perceived behavioural control
Age (ref. 30 and higher)				
18–20	−0.14	**0.26**	**−0.56**	0.01
20–24	−0.10	**0.16**	−0.10	−0.07
25–29	−0.03	0.07	−0.01	−0.05
Union status (ref. married)				
Single	−0.16	**0.35**	−0.14	**−0.17**
Cohabiting	0.08	0.13	−0.11	0.14
Number of siblings (ref. 0)				
One	0.02	−0.04	0.07	−0.10
Two and more	0.03	−0.08	0.10	−0.11
Desired number of children	0.02	0.01	0.05	−0.01
Education (ref. secondary)				
Below secondary	−0.01	**−0.18**	−0.02	−0.12
Above secondary	0.00	0.01	**0.16**	**0.14**
Dwelling size	**−0.21**	**0.13**	**−0.18**	**−0.42**
Employment (ref. employed in public sector)				
Does not work nor study work	**−0.17**	−0.14	**−0.21**	−0.13
In education	**−0.34**	0.13	**−0.45**	0.12
Works in private sector	−0.12	−0.05	−0.04	−0.02
Household income (ref. lowest quartile)				
Second quartile	−0.06	0.07	−0.02	−0.07
Third quartile	**−0.15**	0.07	−0.09	0.00
Fourth quartile	**−0.16**	0.10	−0.12	0.08
Religion (ref. religious)				
Not religious	**−0.18**	0.01	**−0.10**	−0.06
Parents have a life of their own (ref. disagree)				
Neither agree nor disagree	**−0.24**	−0.10	−0.05	**−0.16**
Agree	**−0.19**	−0.06	−0.06	−0.09
Psychological well-being	**0.15**	0.02	**0.08**	**0.18**
Disorientation	**−0.19**	**−0.21**	**−0.09**	**0.11**
Exchange of help	**0.23**	0.01	**0.33**	**0.17**

Note: bold type indicates $p < 0.05$

(Miller and Pasta 1995). Fertility intentions are seen as directly dependent on attitudes (related to the perceived benefits and/or costs of parity progression), norms (both subjective, and related to the objective behaviour of relevant others) and perceived behavioural control. We studied the case of Bulgaria, a lowest-low

fertility country, in which it was possible, in 2002, to implement a specific module within a survey targeted towards the explanation of family and fertility behaviour. A specific attention was paid to norms, as the collection of subjective norms and behaviour was connected to a name-generating network approach, which is common in social network studies.

Our analyses helped in answering a series of questions. First, attitudes, norms and perceived behavioural control are simultaneous determinants of (timing parity-specific) fertility intentions, even when background factors are controlled for. However, perceived behavioural control only matters for second births. Second, as far as the relative weight of these factors is concerned, parity matters. In particular, normative pressure is more relevant for intentions to become a parent, rather than for intentions to progress to second births. Attitudes emerge as more relevant in second-order intentions—and we might speculate that this could be even more the case with higher-order births. Third, gender differences in the weight of these three main factors are limited, although normative pressure seems slightly more relevant for women's intentions rather than for men's intentions. Fourth, the determinants of attitudes, subjective norms and perceived behavioural control are a complex set of factors: socioeconomic, ideational, psychological and social capital-related factors.

The risk of multi-factor study of the determinants of fertility is that, in the end, everything matters, as it seems the case with our analysis of the role of background factors. We believe that our findings provide an approach to the systematic study of fertility intentions as a key to understanding contemporary fertility decision-making, and that the distinction between attitudes, norms and behavioural control is a strategy that allows to simplify this overarching complexity. In fact, survey instruments that are similar to the ones discussed here have been implemented in the Generations and Gender Survey (GGS), not only for fertility (Vikat et al. 2007). Therefore, our approach to study fertility decision-making in the lowest-low fertility context of Bulgaria can now be generalised to: (1) other contexts with different fertility levels; (2) other types of demographic choices, such as partnership formation, leaving home, parental dissolution. A general comparative approach is feasible thanks to the GGS.

The focus on three types of proximate determinants of fertility intentions might help researchers in disentangling the various factors, which is especially useful when fertility-related policies are discussed. For instance, attitudes, and especially the perceived costs and benefits of children can be influenced by the general policy setting, as has been argued, for instance, in recent research on the value of children (Nauck 2007; Nauck and Klaus 2007). Normative pressure, on the other hand, is more linked to long-term ideational change that is only loosely influenced by policies. However, as it has been clarified in the literature on fertility and social interaction, norm might contribute to quick change when "social multiplier" effects are present (Kohler 2001; Kohler et al. 2002). We can expect that in a lowest-low transition country, normative pressure reinforces the effect of crises, with relevant others worried for the economic situation of a new family, and therefore encouraging individuals and couples *not* to have children. For what concerns perceived behavioural control, partnership formation seems the key factor in

relationship to fertility intentions—even though economic constraints translate clearly into a lack of perceived control, again something that contributes to lower fertility in a society like Bulgaria.

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Appendix 1: Relevant Questions Included in the Survey

Attitudes

ATT1. *(Interviewer, neither of the possible answers should be assessed as positive ornegative.)*

	If you would have a child during the next 2 years, irrespective of whether you really wish to have a child or not, to what extent do you agree that this would:	Completely disagree	Rather disagree	Neither agree nor disagree	Rather agree	Completely agree
A	Increase your economic difficulties	1	2	3	4	5
B	Decrease your chances in your working career and/or higher education	1	2	3	4	5
C	Increase your security that at old age there is someone to care about you	1	2	3	4	5
D	Increase uncertainty in your life	1	2	3	4	5
E	Increase the physical burden for you because of the pregnancy, the care for the baby, or breastfeeding *(note: this item is for females only)*	1	2	3	4	5
F	Increase joy and satisfaction in your life	1	2	3	4	5
G	Increase worries and preoccupations in the course of your daily life	1	2	3	4	5
H	Decrease time for your personal interests, for contacts with friends	1	2	3	4	5
I	Increase certainty in your life	1	2	3	4	5
J	Increase the closeness between you and your partner	1	2	3	4	5
K	Increase the closeness between you and your parents and relatives	1	2	3	4	5
L	Mean that a part of you is continued into the future	1	2	3	4	5

Norms

The questions for the study of norms were included in a section entitled "*Embeddedness in supportive relationships*". The respondent was asked a number of questions regarding support given to or received by other persons. He/she was also asked to fill a list of their names.

Interviewer reads:

By asking you the following questions, I would like to talk about the persons who matter in your daily life (relatives, friends, persons you know). Please enter their names in this list, ordering them with numbers like 1, 2, 3, etc. When asked, you will tell me only the number. I am not interested in their names. Do not enter one and the same person more than once.

…….

NOR1. "Now, please tell me the numbers of up to five persons on your list whose opinion you value most highly when you make decisions about your private life."

Number ☐☐ ☐☐ ☐☐ ☐☐ ☐☐

NOR2. "How many children does this person have?"

NOR3. "Imagine that during the next 2 years you will have a child, irrespective of whether you really have such an intention or not. How much would this person approve or disapprove having this child?"

The person will approve very much….	1
The person will approve……..	2
The person will approve somewhat…..	3
The person will disapprove somewhat	4
The person will disapprove……..	5
The person will disapprove very much	6

(Note: this question is asked separately for each person whose number is filled in question 331.)

NOR4. "What is your relationship with this person?"

Note: The answers are selected from a list of 23 possible relationships, including spouse, daughter, son, mother, father, mother of spouse, father of spouse, neighbor, friend, etc.

Perceived Behavioural Control

PBC1. How much would your decision on whether to have or not to have a child during the next 2 years depend on the following conditions?

		Not at all	Rather not	Indifferent	Somewhat	Strongly
A	Your economic status	1	2	3	4	5
B	Your working or educational situation	1	2	3	4	5
C	Your housing conditions	1	2	3	4	5
D	Your health	1	2	3	4	5

.....

PBC2. How much control do you feel you will have over the following circumstances in your life in the next 2 years?

		None at all	Little	Some	Much	A great deal
A	Your income	1	2	3	4	5
B	Your working or educational status	1	2	3	4	5
C	Your housing conditions	1	2	3	4	5
D	Your health status	1	2	3	4	5

Appendix 2: Descriptive Tables

See Table 5
See Table 6
See Table 7
See Table 8

Table 5 Answers to the attitudes questions, women with one child, percentage distribution ($N = 1{,}656$)

	Do not intend to have a 2nd child in 2 years				Intend to have a 2nd child in 2 years			
If you would have a child during the next 2 years, irrespective of whether you really wish to have a child or not, to what extent do you agree that this would:	Disagree	Neither agree nor disagree	Agree	Total	Disagree	Neither agree nor disagree	Agree	Total
A. Increase your economic difficulties	9	7	84	100	15	14	71	100
B. Decrease your chances in your working career and/or higher education	40	46	50	100	61	54	50	100
C. Increase your security that at old age there is someone to care about you	29	27	44	100	21	23	56	100
D. Increase uncertainty in your life	52	22	26	100	64	20	16	100

Table 5 continued

If you would have a child during the next 2 years, irrespective of whether you really wish to have a child or not, to what extent do you agree that this would:	Do not intend to have a 2nd child in 2 years				Intend to have a 2nd child in 2 years			
	Disagree	Neither agree nor disagree	Agree	Total	Disagree	Neither agree nor disagree	Agree	Total
E. Increase the physical burden for you because of the pregnancy, the care for the baby, or breastfeeding	30	12	58	100	41	10	49	100
F. Increase joy and satisfaction in your life	3	8	89	100	3	4	93	100
G. Increase worries and preoccupations in the course of your daily life	8	9	83	100	15	10	75	100
H. Decrease time for your personal interests, for contacts with friends	12	10	77	100	17	14	69	100
I. Increase certainty in your life	18	33	50	100	12	25	63	100
J. Increase the closeness between you and your partner	14	28	59	100	9	17	75	100
K. Increase the closeness between you and your parents and relatives	19	28	53	100	15	22	64	100
L. Mean that a part of you is continued into the future	5	11	84	100	3	5	92	100

Note: answer categories "completely agree" and "rather agree" are collapsed in "agree"; "completely agree" and "rather disagree" are collapsed in "disagree" (see ATT1 in Appendix 1)

Table 6 Opinions of important others about the respondent having a child within 2 years, women with one child, percentage distribution

Important other rank	Do not intend to have a 2nd child				Intend to have a 2nd child				
	Approve	Somewhat disapprove	Disapprove	Total	Approve	Somewhat disapprove	Disapprove	Total	*N*
1	77	14	9	100	92	6	2	100	942
2	79	14	8	100	91	6	3	100	840
3	80	14	6	100	91	6	3	100	696
4	83	11	7	100	89	8	3	100	487
5	78	14	8	100	92	6	2	100	335

Note: answer categories "approve very much", "approve" and "approve somewhat" are collapsed in "approve"; "disapprove" and "disapprove very much" are collapsed in "disapprove" (see NOR3 in Appendix 1)

Table 7 Conditions upon which the choice to have a child within the next 2 years depends, women with one child, percentage distribution

How much would your decision on whether to have or not to have a child during the next 2 years depend on the following conditions?	Do not intend to have a 2nd child				Intend to have a 2nd child			
	Does not depend	Indifferent	Does depend	Total	Does not depend	Indifferent	Does depend	Total
Your economic status	11	40	49	100	26	39	34	100
Your working or educational situation	47	33	20	100	59	26	14	100
Your housing conditions	36	31	33	100	49	29	22	100
Your health	39	38	23	100	42	37	21	100

Note: answer categories "not at all" and "rather not" are collapsed in "does not depend"; "somewhat" and "strongly" are collapsed in "does depend" (see PBC1 in Appendix 1)

Table 8 Respondent's perceived degree of control on specific circumstances, women with one child, percentage distribution

How much control do you feel you will have over the following circumstances in your life in the next 2 years?	Do not intend to have a 2nd child				Intend to have a 2nd child			
	None or little	Some	Much or a great deal	Total	None or little	Some	Much or a great deal	Total
Your income	60	37	3	100	53	44	4	100
Your working or educational status	44	48	8	100	41	49	10	100
Your housing conditions	49	41	10	100	37	49	14	100
Your health status	29	62	8	100	29	63	8	100

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