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Realization, Postponement and Abandonment

Factors of realizing child-bearing intentions in four European countries ¹

-- Work in progress, do not quote, remarks are welcome --

Abstract

This study investigates the realization of time-related positive fertility intentions using a comparative approach. Four European countries of medium size (two Western /the Netherlands and Switzerland/ and two post-communist /Hungary and Bulgaria/) with rather different fertility regimes are compared. Using four harmonized longitudinal panel surveys, it was possible to construct a typology of fertility intentions and outcomes, and to identify common patterns but also country differences with regard to influencing factors. Employing multinomial logistic regressions we unfold factors influencing realization of intentions, postponement and abandonment of future childbearing. Age, partnership status and education seem to influence the realization of fertility intention in the same way in the Netherlands, Switzerland, Hungary and Bulgaria. However, the effects of parity and religious denomination differ in the four studied countries.

1. Introduction

Our investigation is closely linked to the avenue of research analyzing the consistency and discrepancy of fertility intentions and fertility behavior. Today we experience not only an increasing number of publications, but also more and more differentiation of this field of research. As a consequence, it became increasingly visible, that the meaning of fertility intention could differ, and its measurement could be done in different manner. Naturally, research results are influenced by the differing understandings and operationalization of intentions. In our study we concentrate on a specific kind of fertility intentions, more specifically, we would like to understand the realization of intention to have a(nother) child within a given time period. The limitation to people having positive intentions within a given time period is a further specifying aspect in our investigation. (Indeed, we are here not interesting in intention realization of those people intending not having a child within a given time period.) The success of realization is measured with behavioral outcomes: The key measure is, whether a child is born or not within the given time period. Furthermore, we

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want to see also whether those who are not fulfilling these intentions still maintain them or abandon them in the future.

Analyzing the people having positive short-term intentions we would like to understand which factors support or hinder the realization of fertility intentions. Otherwise: are there social groups who could realize their intention with a higher probability than others. Furthermore, we are also interested what social groups maintain or abandon their short-term childbearing intentions in case of failed realization.

The *comparative approach* is the characteristic novelty of our research. The comparative approach – since we compare the fertility intentions and realization in four countries– enables us to analyze how far universal or (country-)specific demographic and social factors influence the realization of fertility intention

Our analysis is structured by the following steps. Firstly, we review and discuss the relevant literature. Based on this we construct hypotheses for our empirical analyses. The technical section starts with the outline of fertility development in the four selected countries, and continues with the description of the employed data-sets harmonized by us and of used methodological tools. During the discussion of the results we concentrate on the effects of the classical socio-demographic variables, namely on age, parity and partnership status. The effects of the control variables will be also noticed, and we will mention that we expect further important results from their future research. Finally, we call the attention to potential of socio-economic and attitudinal differentials in understanding fertility decision making.

2. Intention related fertility behavior and longitudinal research: review of literature

When studying the influencing factors of fulfillment and failure of fertility intentions, there is a huge temptation to consider all the studies analyzing social determinants of fertility behavior. More specifically, the ones which reveal which social and attitudinal factors influence entering of parenthood, and the birth of the second or third child. Even though these studies are undoubtedly important, in our analysis we concentrate only that specific fraction of the literature which utilized fertility intentions in some form. Based on our research focus we limit ourselves to those analyses, which were *longitudinal*, therefore studied intentions measured at a certain point of time and related them to the subsequent childbirths. Before going to this literature review we locate our employed intention concept within a larger context of intention research, and lay out the concrete features of our intention variables.

2.1. On intentions: in general and in practice

Most recently a lot of research has been conducted in the field of fertility intentions and outcomes, and concentrated on the discrepancies between them. (Schoen et al. 1999, Heaton et al. 1999, Noack and Østby 2002, Quesnel-Vallée and Morgan 2003, Berrington 2004, Testa and Toulemon 2006). We do not want to review this literature in detail, since we have already published our reflections (Spéder and Kapitány 2009). However would like highlight some conclusions. There, we claimed that the differences in research results might be related to the fact that fertility intentions and preferences can be understood in many different ways and its classification may vary (Miller and Pasta 1995). That necessitates a clear definition of intentions and related fertility behavior. It is also an essential result of the above analyses and debates that the *timing* and *certainty* of the intentions, furthermore the consideration of the *partner's intentions* plays a crucial role in the chance of realizing these intentions. However in our analyses only the timing aspect will be apparent. Research results supports our approach: Since the realization of intentions is strongly correlated with the time frame (cf. Schoen, et al., 1989), and short-run intentions could also be understood as „strong”, or „involved” intentions, we believe that this approach is very crucial in understanding the intention and behavior relation. Moreover, it is also noticeable in the analyses that demographic and social factors also contribute to successful childbearing intentions or to their possible postponement.

The key methodological idea and the construction of our dependent variables employed in this study comes from Heaton et al. 1999. They concentrated not only on fulfillment and failure of fertility intentions, but also analyzed the changes in intentions within the given time-priode.² They included several social and attitudinal factors during the search for the most relevant explaining factors of fulfillment and change of intentions. (Heaton et al. 1999.) Not only Heaton at al. but also Berrington used multinomial regression analyses for a similar analysis, and assisted our research from a methodological point of view (Berington 2004).

As mentioned earlier our investigation concentrates *on time-related intentions*, and considers also whether failed intentions are maintained or abandoned. Those who intended to have a child within two years and successfully realized this intention within three years³ were called “*intentional parents*.” Since we were also interested how “reversible” were those intentions that could not be realized, we grouped the non-realizer into two group: those who maintained their intention to have children at the subsequent wave were grouped to “*postponers*”, and the others

² It is important to note that Heaton et al. 1999 do not study intentions restricted in time, but intention in general.

³ The fact that the time frame of the intention and the time period for realization do not match is due to the limitations of the different surveys we utilized.

who abandoned their plans into “*abandoners*”. The table below shows our used typology, the construction of our dependent variable.

The potential influencing factors, whether the positive fertility intentions will be fulfilled or not, and if not intentions will be maintained or abandoned will be discussed below in detail.

Table 1.
Basic types of positive fertility intentions and outcomes

Fertility intention-outcome Types	Fertility intention within two years (at the 1 st wave)	Had a birth within three years (between the 1 st and 2 nd waves)	Intend to have a child at subsequent wave (the 2 nd wave)
Intentional parents	Yes	Yes	Yes
Postponers	Yes	No	Yes
Abandoners	Yes	No	No

2.2. Potential influencing factors of intention realization (Hypotheses)

On the one side theoretical approaches enables to consider all the potential factors influencing fertility decision making and within that the realization of the intentions, and the possibilities and limitation of the available data on the other side define what kind research question could be examined closer. Since we worked with a post-harmonized data set, and were able to construct limited number of identical explaining variables, we concentrated our analyses on three in the demography very important factors: age, parity and partnership relation. Although we could construct some social and behavioral variables to compare (see section 2.3), due to the must of constructing very simple variables, we utilize them as controlling factors. Consequently, the sating up of hypotheses concentrate on the demographic variables.

2.2.1. Age

Previous research had a massive evidence of a positive relation between age of the respondent and the realization of intentions. The study about fertility expectation and their realization carried out by Noack and Østby (2000) stresses the salient role of demographic factors. Being younger (18–24 years) is associated with a higher likelihood of belonging to a more realistic group, concerning fertility expectations. Schoen et al. (1999) shows that after controlling for all the characteristics of intentions and other background factors the significant influence of age remain in determining childbirths: younger respondents have a higher likelihood of having a child. Also most recently in Bulgaria, those below 30 have significantly higher opportunity to get a child if we control for a sensitively constructed intention variable (Philipov, 2009). Berrington (2004) studying a more

specific group, namely childless women between the ages of 30 and 39, also concluded that the advancement of age decreases the chance of successfully realizing childbearing intentions.

Heaton et al. (1999) and Testa and Toulemon (2006) call the attention to the effect of age on a different kind of failures of fertility intentions. Focusing on childless people, Heaton et al. (1999) on the one side found that older people are more prone “to switch to childlessness”, but also to switch from “not wanting any child to parenthood”. On the other hand, they do not found any age differences between “intentional parents” and “postponers”⁴. Testa and Toulemon found that the predicted probability of involuntary postponement⁵ increases inevitably with age until age 32, and than stays at a high level and then perhaps declines. They draw the conclusion, that “those who failed to have a desired birth and still want to start a family five years later are probable those who cannot have a child due their advanced age and the resultant limited fecundity” (p. 65). Indeed, most of the research which found a significant relation between failure of realization and advanced age assume the operation of biological factors.⁶ Some research assumes also that life-style factors may conflict stronger with childbearing decisions at later ages. (Philipov, 2009) We summarized the above mentioned research results as the “*biological-clock*” approach, namely with growing age the realization of intention will be increasingly unsuccessful, since fecundity decreases with age. This will, perhaps, lead to the abandonment of childbearing intentions in later age.

Although none of the reviewed research results support directly an alternative hypothesis, some approaches suggest considering alternative way of thinking. Research demonstrating higher instability of intentions in younger ages (Rindfuss et al 1988) indicates higher failures of intention-realization in earlier life course phases. In their study of intention-behavior relation Miller and Pasta also assumed a higher tenacity in realizing fertility intentions in later ages. “The time pressure associated with higher age, longer marital life and higher age of previous child are likely to promote the occurrence of proception” (ders. p 535), namely higher probability of realization at later ages. However, the results of their analysis of young married couples did not support this assumption. Considerations about the prevalence of age norms in modern societies (Settersten and Hagestad 1996, Heckhausen et al. 2001, Billari et al., 2009) also suggest a higher likelihood of realization at an older age. According to the model of developmental regulations of the life course worked out by Heckhausen, people approaching the end of their fertile period intensify their efforts of goal attainment practice (Heckhausen et al. 2001). Since people are conscious of the deadline, therefore the social deadline exist (cf. Mynarska 2009), thus we can assume that people approaching this age

⁴ Here is necessary to mention that our categorization differs somewhat from Heaton et al. 1999.

⁵ Testa and Toulemon’s „involuntary postponement” corresponds perfectly with our „postponer” category.

⁶ Shown by Leridion 2008.

limit, whatever happens, will strive to realize their intentions. Consequently, the “*social age norm*” approach assumes that with growing age postponement decreases.⁷

Some fraction of the literature on childlessness could help us to make the relation between postponement and abandonment apparent. Several studies argue that many of the childless individuals did not originally intend to stay childless.⁸ However, by constantly revising their intention, and postponing the decision to have the child, they abandon their original plan and become childless (Berrington 2004). According to the above mentioned mechanism abandoner should be older than postponer.

Based on the considerations mentioned above and according to the two basic approaches we can develop our hypotheses about the role of age in the fulfillment and failure of time related fertility intentions:

H1a) If considering the *intentional parents vs. postponers*, according to the biological clock approach postponers will be older than the successful realizer, whereas according to the social age norm idea the younger will be more prone to postponement than the older.

H1b) If considering *intentional parents vs. abandoners*, based on the biological aging concept, we expect a higher risk of abandonment with increasing age; the assumption based on social age norm concept is similar, since after the dead line people abandon their childbearing intention.

H1c) Comparing the relation of *postponers and abandoners*, based on the continuous postponement concept, postponers will be younger than abandoner.

2.2.2. Parity

The longitudinal studies include parity usually as a control variable, therefore parity relevant results frequently become “by products” of analyses focusing on fertility intentions. In the research carried out by Schoen et al. 1999, those who have one child usually show higher likelihood of getting another child within the two waves. However, among non-married women (living alone or in cohabitation) also women of parity 3 had significantly higher chance of getting another child. Berrington analyzing the British Household Panel Survey found that in a given 6-year period, those with no child or one child had the highest likelihood of realizing their (further) childbearing intentions (Berrington 2004). The strength of parity effect depends also on the time spent since the last birth, namely shorter period increases the likelihood of getting the intended next child.

⁷ Since biological age limits differ according to gender, the consciousness could differ accordingly. Unfortunately in this study we could not carry out separate analyses by gender.

⁸ Of course a large fraction of childless women could be classified as originally intended voluntary childless.

Studies investigating childless people stress the instability of intentions in younger ages (Rindfuss et al. 1988) and that many of the people do not realize and postpone childbearing intentions (Heaton et al. 1999). In the US, among childless people in their propogative age, 45 percent of those who intended⁹ to have a child did not realize their intention within 5 years. In France, as Testa and Toulemont reported 54 percent of childless people stating “I want a child within five years” had a child within the five years period (ders. p. 57). These results allow us to argue that among childless people we may assume a low level of realization of intention and high postponement. This assumption coincide with those studies which demonstrate competing and conflicting life goals (Rindfuss et al. 1988, Barber 2001, Philipov 2009), since childless people exhibits the widest array of alternative life goals competing with childbearing (Barber 2001).

From longitudinal studies investigating the realization of family size intentions we can learn about, that those intending to have two children have the highest chance of realizing their initial intentions (Quesnel-Vallée, Morgan 2003). Furthermore, those planning to have no child or one child often will have more, while those intending to have three or more, often will have less. From this study we may deduce: people with two or more children may have a lower chance of realization than those having none or only one child.

On the basis of the above we assume:

H2a) Childless people are more likely to postpone and less likely of abandone their plans in relation to successful realization (intentional parents).

H2b) People with one child will have the highest likelihood of realization of their fertility intention within three years.

H2c) People with two or more children will be more prone to abandon than to realize or to postpone their plans.

2.2.3. Partnership

Researches explicitly claim that cohabiting partnership, especially marriage is a prerequisite of the realization of childbearing intentions (Heaton et al. 1999, Schoen et al. 1999, Berrington 2004, Testa and Toulemon 2006, Spéder and Kapitány, 2009). This should be true also in our case, although partnership relation is also one of the strongest factors determining of the formulation of short-term childbearing intention (cf. Philipov et al. 2006, Billari et al. 2009). Consequently: partnership form dominates the whole decision making process from the emergence of intentions until the conception.

⁹ The intention did not referred to a time window.

It is a more intriguing question whether the form of partnership (marriage or cohabitation) has any effect on the realization of intentions. It seems that in some countries, such as France, where cohabitation is widespread, this form of partnership has but a modest effect on the chances of childbearing (Toulemon and Testa 2005). In the United States, cohabiting couples are also less likely to realize their intentions (Heaton et al. 1999). Heaton et al. conclude: “despite documented increase in non-marital childbearing, a close relationship between having children and marriage persist” (ders. 536). In a more detailed analysis, we also find in Hungary that those females living in cohabitation succeed less in realizing their positive intentions compared to the married ones (Spéder and Kapitány 2009). We agree with those authors who pointed out that the meaning of cohabitation differs from country to country (Heuveline and Timberlake 2004), which is closely related to the prevalence of cohabitation within the countries as well. The four analyzed countries are interesting cases from this perspective, since cohabitation as a form of partnership is spread rather differently in the four countries.

Obviously, stability in partnership behavior will also influence the risks of realization (Heaton et al. 1999, Testa and Toulemon 2006). We can formulate common sense associations: on the one hand, separation or divorce will increase the likelihood of being a postponer or abandoner. Starting cohabitation or getting married will, on the other hand, increase the likelihood of being a successful realizer (intentional parent)¹⁰. This assumption is in accordance with the social-psychological approach, since this theory suggests that (unexpected) life course events could discourage actors from realizing their (earlier) intentions (Ajzen 1988, Miller and Pasta 1995). Based on the above research results we formulated the following assumptions:

H3a) Cohabiting people (married and non-marital partnered) will have a higher likelihood of successful realization than people living alone. (This is a very plausible assumption, however one should keep in mind that we included only those single, non-cohabiting respondents in our analyses who intended to have a child within the next two years.)

H3b) Cohabiting people are perhaps less committed to each other than married ones (Waite and Gallagher 2000); therefore, the rate of realization of intentions will be lower among cohabitants than among the married. However, due to different meanings of cohabitation, we expect differences across the countries.

H3c) Separated people will have a much higher likelihood to postpone or to abandon than cohabiting people, independently from the institutional form of the partnership. We also assume that separated people will have lower chance of realization than single ones.

¹⁰ Here is no space, and no reason to go into the question of the mutual relation of childbearing and partnership behavior.

2.3. Additional factors controlled: education, activity, religious denomination

We agree with those who assume, that the fertility decision process is happening in specific social context and is carried out by people possessing different resources and owning various value orientations, attitudes (cf. Westoff and Ryder 1977, Ridnfuss et al. 1988, Heaton et al., 1999, Schoen et al., 1999, Noack and Østby, 2000, Berrington, 2004, Testa and Toulemon 2006, Philipov, 2009, Spéder and Kapitány, 2009). Therefore structural positions (social and economic status) and attitudes should be involved in understanding childbearing decisions, and also realization of intentions. Using a data set of post-harmonization has always its limitation, especial if it concerns comparable indicators of living conditions and attitudes. We could harmonize only three kinds of such variables – *level of education, economic activity, religious denomination* – , and even in a very simplifying manner. However we decided to use it in our model, since we assumed they could contribute to our analyses as controlling factors, and could support to gain more specific effects the three demographic variables discussed earlier. With the very selective review of the literature of the three mentioned domain we do not aim to work out hypotheses as earlier, and could not asses the results. We would also demonstrate that in case of relevant and well designed variables we could gain better understandings of intention realization.

Research results concerning *education* are ambiguous. In studies analyzing US data the education usually plays a role in understanding the relationship between intention and behavior. Heaton et al. for example found that better educated individuals are more prone to postpone their intentions (Heaton et al. 1999). In the study using the two waves of the NSHF education plays a significant role only among non-married women (living either alone or in cohabitation), and at the similar manner (Schoen et al., 1999). Explanation of these results follows an economic reasoning: women with higher educational level invest resources in building up human capital and getting a child has high opportunity costs. The results of the various European studies differ from each other. Testa and Toulemon found that better educated French women could realize their intentions with higher likelihood. On the contrary, Noack and Østby did not find any educational effect on having realistic fertility expectations in Norway (Noack, Østby, 2000).

Education can mediate effects of economic resources (“income effect”), and if no relevant ideational factors are present in the model, also could mediate effects of value orientations. There is a variety of lifestyles and cultural resources that are linked to education¹¹. Furthermore, it could also be important to highlight that people with a higher level of education are generally more informed

¹¹ For instance, employment motivations differ as well: among those with a higher level of education, career perspectives dominate, while those with a lower level of education are more concerned with making ends meet.

and knowledgeable – by virtue of it, and we can assume that intended parenthood will be the most pervasive among them. Lastly, the mentioned human capital aspect (“opportunity cost effect”) should not be neglected either.

Research using different kind economic activity status is abundant. Concentrating or having job or not we should highlight the effects being unemployed on realization of fertility intentions. Rindfuss et al. indicate that *male unemployment* hinders the realization of fertility intentions. Adsera in Spain, Testa and Toulemon in France found the same relation: unemployed are blocked in their childbearing intentions (Adsera 2005, Testa and Toulemon 2006). We also found that employed men were more likely to realize their fertility plans than unemployed men (Spéder, Kapitány, 2009). This correspond with the well know income-effect mechanism assumed at work among males (Ermisch, 2002). We can also assume, that *women* economic position could influence the realization of fertility intentions at different manner (cf. Kreyenfeld, 2001), but we are missing powerful empirical evidences.

We agree with those who also include universal *subjective variables* into the investigations focusing on the strength of fertility intensions (cf. Heaton et al., 1999, Berrington, 2004, Philipov, 2009, Spéder and Kapitány, 2009). All these studies point to the additional effects of subjective factors. Heaton et al. included several ideational variables, general value orientations etc. in their analyses (Heaton et al., 1999). Some of their results are as expected: strong leisure orientation inclines people to postpone, and agreement with negative consequences of mother’ employment (“working is harmful for children”) support realization. Carrier-orientation, surprisingly, did not have significant effect on the relation of intentional parents versus postponers. Berrington shows that gender role attitudes, namely being more egalitarian, increase the chance of childless females in their 30’s to receive a child (Berrington, 2004). In the Hungarian setting we revealed that secular beliefs among women increase the likelihood of being an abandoner, and males’ bright “future outlook” (high overall satisfaction) contribute to being an intentional parent and not an abandoner (Spéder and Kapitány 2009).

Unfortunately, our comparative data-set provides a very limited space for comparing ideational factors, we could use only *religious denomination*. All the four studied countries are religiously mixed, and differ in the ratio of the different denominations. In Hungary Roman Catholics are in majority, and Protestants (Calvinists and Lutherans) in minority. In Switzerland, which is the home country of Jean Calvin, Protestants and Roman Catholics are equally represented in the society. The Netherlands, could be seen as a secular country, although Roman Catholics and Protestants are also present. In Bulgaria the majority of the population belongs to the Greek Catholic (orthodox) church. Out of the very rear comparative analyses in Europe in this respect,

Philipov and Berghammer (2007) findings present a mixed picture according to different fertility intentions and preferences. Multi-denominational countries showed contradictory evidences regarding preferences. Now however, our dependent variable is different: we focus on intentional outcomes.

3. Context, Data and Methods

3.1. The national context: fertility tendencies in the Netherlands, Switzerland, Hungary and Bulgaria, 2000-2007¹²

Countries were selected on the basis of the availability of suitable longitudinal data-sets. Namely, only those countries were considered where longitudinal data-sets were available, and if these data-sets included time-related fertility intention questions. Naturally it was also a selection criteria, whether the questions could be subject for harmonization. Here we outline the fertility development of the selected countries since 1990 and highlight the situation in the last decade where the data collections happened.

The Netherlands: The level of fertility is quite high and stable in the European context, and mothers give birth to their first child at a late age (Fokema, et al., 2008). The Netherlands is also a case, where recuperation emerged quite early relative to other West European countries (Lesthaeghe, 2001), and is an example of increasing fertility after a longer period of decline. It belongs to the group of exceptional European countries where some anti-aging of fertility occurred: around the turn of the century there was some decrease in mean age at first birth. In the period of 2004 and 2007, the mean age of mother at the first childbirth increased somewhat by 0.2 years. The total fertility rate resides at a high European level, above 1.7. All that indicates, that the Netherlands represents a stable fertility regime.

Switzerland: Low and very late (advanced) fertility is characteristic of Switzerland. Furthermore, the mean age of mothers at birth continuously rises. Around the beginning of the 90's the mean age of mothers at childbirth was lower than in the Netherlands, at the time of our inquiry, between 2004–2007, the mean age of mothers in Switzerland surpassed that of the Netherlands. The mean age of mothers at childbirth increased in Switzerland with 0.5 years during the investigated three years (2004–2007). The TFR was around 1.45 at the time of the data collection.

Hungary: The Hungarian fertility transition started at the beginning of the 1990's. From 1991 over 7 years the level of fertility (TFR) dropped from 1.84 to 1.29 in 1999, and since that time has

¹² We give more detailed accounts of the countries, pointing out some social and institutional differences in our parallel study, cf. Spéder, Kapitány 2010).

fluctuated slightly around the 1.3 level. The mean age of mothers at first birth has been increasing permanently since the second half of the 1990's. The fertility transition happened and happens in Central Eastern Europe with a higher pace than in Western Europe. During the investigated period, from 2001 to 2004 the mean age of mothers at first birth increased from 25.3 year to 26.3 year. Naturally, if the postponement distortion would be acknowledged in the calculation of the TFR, than the adjusted fertility would be much higher (Bongaarts and Feeney, 1998).

Bulgaria: Bulgarian fertility followed the pattern of fertility transition of former Communist countries. During the investigated period the transition process continued: the mean age at the first birth increased by 0.8 years from 2002 to 2005. At the same time the Bulgarian fertility showed a very slight increase. It reached its lowest level at the end of the 1990's (1997–1998) at a level slightly above 1.1. Between 2002 and 2005 it increased by 0.1. Koyscheva and Philipov state, that the Bulgarian societal transition was somewhat behind compared to other Central European countries, and the economic and social crisis was somewhat deeper (Koytcheva and Philipov, 2008)

This very brief description of the four countries would not and could not give a comprehensive account of differences in fertility at macro level. Our aim was rather to show that the subject of this study, the individual and group specific behavior, is embedded into quite different fertility regime setting.

Figure 1.

Mean age of mothers at all births in Netherlands, Switzerland, Hungary and Bulgaria, 1998-2007

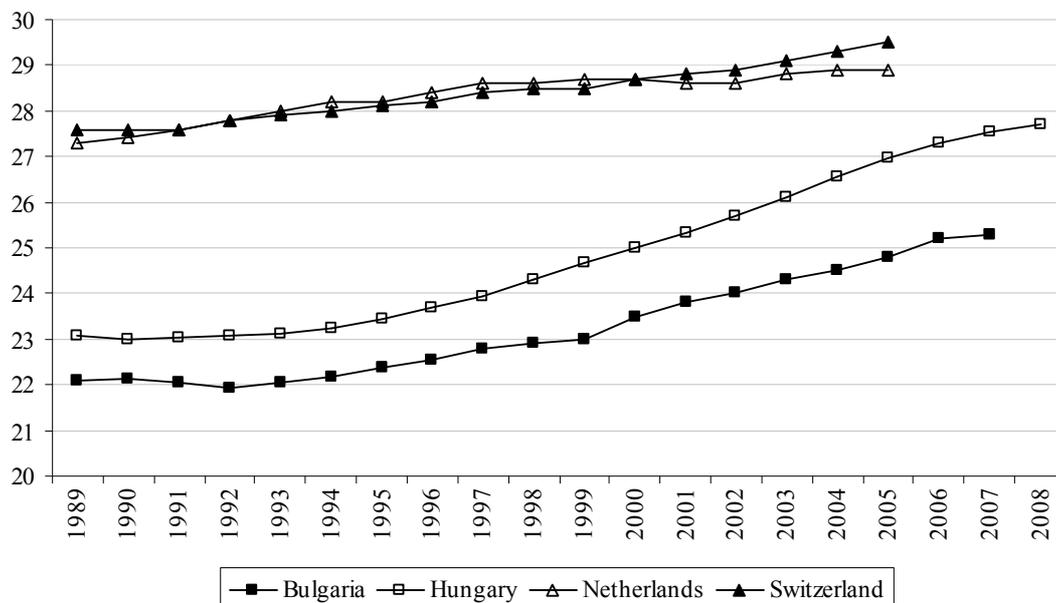
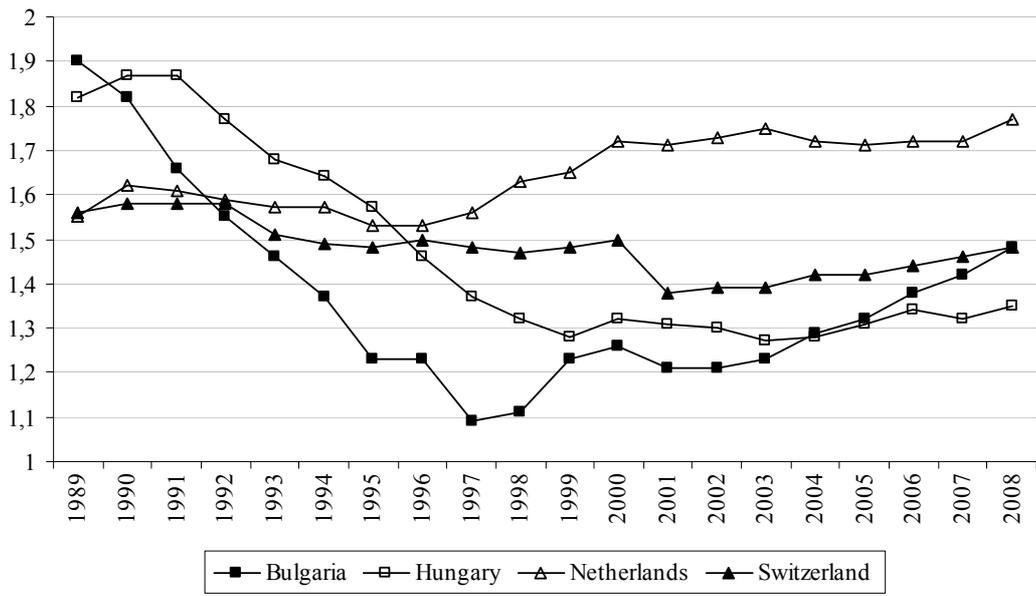


Figure 2.

Total fertility rate in the Netherlands, Switzerland Bulgaria and Hungary, 1989-2007



3.2. Data, Sample and Methods

We use four quite different, but nationally representative large scale longitudinal panel surveys. The Hungarian and the Dutch surveys resemble each other: they focus on changes in demographic behavior.¹³ We use the first two waves of the Netherlands Kinship Panel Survey (Dykstra et al. 2007), and the Hungarian Turning Points of the Life Course survey (Kapitány et al. 2003). The time frame of the follow up was three years in both cases. In the case of Switzerland, the Swiss Household Panel survey's follow up was organized annually; therefore we used the 6th and the 9th waves for our analysis (Voorpostel, et al. 2009). In the Bulgarian Social Capital survey more than ten thousand women and men age at 18–35 years were interviewed between 2002 and 2005¹⁴. The main features of the surveys are described in the appendix. The first investigated waves of the surveys were between 2002 and 2004, and the subsequent investigated waves took place between 2005 and 2007. Although the questionnaire programs of the four surveys were rather different: in our assessment fertility intention question are suitable for comparison. All the four surveys, though in a different manner, contained questions on time-related fertility intentions, and provided an accurate account of births between the waves.

Since we utilize four independent surveys, it is not surprising that during the harmonization we faced many problems. However, we believe that we could construct a dependent (intention-outcome) variable suitable for comparison as well as comparable independent variable covering basic influencing factors of intention-behavior realization. Obviously, we have to make some compromise: The two years time window of the Swiss and Bulgarian questions is the reason for having the two years time-window for the intention-question in this comparative study. Furthermore, women pregnant at the time of the interview were handled differently in the three countries. We solved this problem with adding second wave pregnant to intentional parents (The exact wording of the questions and harmonization solutions are presented in the appendix.)

For the sake of our analysis we selected a subsample of the surveys. Only those persons were selected into the subsample, who intended to have a(nother) child within two years, and only those who were interviewed at subsequent wave.

We applied *multinomial regression* techniques in our analysis. This method was used by Heaton et al. (1999) and Berrington (2004) to study the relationship between fertility intentions and behavior of childless people. We utilized also this approach in our Hungarian study (Spéder,

¹³ Both surveys will be incorporated in the Generations and Gender Surveys (GGS) after harmonization.

¹⁴ The Bulgarian survey was carried out in the project „The Impact of Social Capital and Coping Strategies on Reproductive and Marital Behavior” organized by the MPDIR Rostock and the Bulgarian Academy of Science. (See Bühler, Philipov, 2005).

Kapitány, 2009). Since our research question is aimed at exploring and understanding failures of realizing positive intentions, we used the group of intentional parents as *reference group*.

The basic distribution of our dependent variable, the fertility intention-outcome variable, reveals huge differences among the countries. The rate of successful realization is quite high in the Netherlands: three out of four people could realize their two-year-intention within three years. The ratio of realization surpasses only slightly the level of 50 percent in Switzerland. Lastly, in Hungary and Bulgaria two fifth of the time-related fertility intentions could be realized. The ratio of those successfully realizing their intentions seems to be quite low in Hungary and Bulgaria. In this study we focus on *similarities and dissimilarities with regard to determining factors*.¹⁵

Table 2
The distribution of different fertility-intention outcomes

Fertility outcomes	Countries			
	Netherlands	Switzerland	Hungary	Bulgaria
Intentional parents	75	55	40	38
Postponers	15	(27)	42	44
Abandoners	11	(18)	18	18

4. Results

Age is a confident predictor of the investigated relationships between intention and behavioral outcomes, since in 7 out of 8 relations it has a significant effect. (*cf. table 4, first line.*). Those who failed to realize their intentions within three years -- regardless of the changes in their intentions -- are clearly older than those who succeeded. With other words: the younger the respondent the easier s/he can realize the positive fertility intention. This result *clearly supports the “biological clock” approach* as assumed in H1a and H1b hypotheses, since both postponers and abandoners are older than intentional parents. This unambiguous result, at least in the relation parents vs. postponers (H1a), reject the functioning of a “social age norm” mechanism, since according that idea with approaching the dead line, becoming older, people should be more prone to realize than to postpone their intentions. And this is not the case, in contrary, postponers are older than intentional parents. We could not find age-differences comparing posponers and intentional parents only in the Netherlands¹⁶.

¹⁵ The Spéder and Kapitány 2010 study is devoted completely to describe and explain country-specific differences in the rate of realization.

¹⁶ Similarly to our ‘outlier case’, the no difference was found in the research done by Heaton at al. 1999.

In two of the analyzed four countries (HU, NL) a clear and in Bulgaria a slight age difference could be identified also between postponers and abandoners: abandoners are older than postponers. This result support our H1c assumption, and fit into the concept, that abandonment in the three mentioned country is a result of “perpetual postponement” (Berrington). Nevertheless, the Switzer case does not support this concept.

The effect of the *number of children (Parity)* appears to be significant in most cases (14 from 16 coefficients), and the remaining 2 coefficients corresponds with the direction of the others, although the effect is statistically not significant. In most of the analyzed countries our assumption seems to be confirmed, but not all of them and not in all the investigated countries.

Regarding the relation between intentional parents and postponers, we clearly see that *childless people (parity0) have a higher risk to become postponers than successfully realizing their intentions*. The H2a) hypothesis is supported. It confirms assumptions that conflicting life goals prevent the realization mostly in the case of childlessness (Rindfuss, et al., 1988, Barber 2001), or support the idea that having the first child somewhat inhibits the realization of alternative life goals. One exception seems to exist nonetheless, but only in relation to parity0 and parity1: in Bulgaria people with one child are more likely to become postponers than childless people. (However, comparing childless and two or more parities, the general correlation can also be found in Bulgaria: childless people are more prone to postpone than people with two or more children.)

The Bulgarian case needs further investigation, but one explanation seems plausible: higher likelihood of realization at parity0 can be a sign of increasing prevalence of involuntary one-child-families. This could be a sign of diffusion the single child family model found in Russia and Ukraine (Adveev 2003, Perelli-Harris 2005, Philipov 2009).

Analysing our second parity-specific assumption (H2b) and studying whether people with one child (parity0) have the highest chance to be intentional parent, namely not being a postponer neither an abandoner is also very important. Only the relation between intentional parents and abandoners seems to support this assumptions, since those with higher (2+) parity are more prone to abandon their short term fertility intentions and reduce their family size intentions in this way. If considering the relation between postponement and successful realization, the coefficients of being non-relizer at parity2+ is not clearly higher than at parity1, so this does not support the mentioned second hypotheses. Therefore the idea, having two children is the most successful project, got only a partial support in our analyses focusing on short-term intention realization.

If we compare those who abandon their childbearing intentions to those who realize them, it seems that people in Bulgaria, Hungary and in the Netherlands with one (and more) child(ren) are significantly more likely to abandon their intentions than childless people. This is in accordance

with our third parity-specific (H2c) hypothesis. Conversely, in Switzerland the relation is reversed: childless people (Parity 0) are at higher risk of abandoning their intentions than people with children (Parity 1 and Parity 2+ ¹⁷). This result calls our attention to differences between fertility regimes in Europe. In two Eastern and one Western European countries people abandon their childbearing intentions if they have more children, or at least one. In this respect the Swiss behavior seems to be an exception: the higher risk of being an abandoner among parity0 and in relation to higher parities point to, and is an indicator of high childlessness in Switzerland (Dorbritz, Ruckdeschel 2005.)

To summarize our parity specific analysis, we have to emphasize that on the one hand realization of positive short term childbearing intentions differ according the parity-specific context. And this is valid and the same according many relations and in several countries. On the other hand, we should also highlight that in addition to general correlations we could also identify a country-specific (Swiss, Bulgarian) behavioral element.

Partnership status exhibits a clear influence if comparing single non-cohabitants with married (and cohabitators). Furthermore, partnership is in all the four countries a prerequisite to the realization of fertility intentions (Schoen et al. 1999, Philipov and Testa 2007). (One can ask also here, whether asking people living alone to state their childbearing intentions is irrelevant, but we should also consider that many of them may have dating and/or LAT partnerships.) Comparing cohabitation and marriage, we could not find strong significant differences. Regarding the realization of fertility intentions the type of partnership, measured in the mentioned way, we could not identify clear differences either.¹⁸

Changes in *partnership status* clearly influence the realization process: separation, as expected, hinders the realization of fertility intentions. Also the type of failure is interesting: in three of the four studied countries, people who dissolve their partnership abandon their short-term fertility intention. (Especially high is the odd becoming an abandoner in Switzerland.) The exception is The Netherlands, where there is no difference between postponers and abandoners. We should also highlight, that this result clearly supports the assumption, that life-course changes strongly influence the intention-behavior relation (Ajzen 1988). However, they may not weaken the relation, but probably force changes in intentions, at least in short run. This could again have long-term consequences, namely downsizing long term family size intentions (cf. Liefbroer, 2009).

¹⁷ Although in Parity2+ the odds are clearly lower in relation to parity0, but not significant.

¹⁸ Here it should be noted, that for Hungary we find significant differences among women. Considering negative intentions cohabitators had a higher chance to realize their negative fertility intentions than married people (Spéder, Kapitány, 2009).

The *controlling variables* have significant effects not in each case, but several times, and in all the countries. However, *the directions of the effects are several times in opposite and varying* in the various countries. This is perhaps due to the fact, that social conditions play a different role in the countries and/or institutional settings, cultural context influence in a different manner and with varying strength in intention realization. And it is not to exclude that the oversimplification of the used independent variables resulted from post-harmonization contributed to the contradictory effects.

In three of the four countries, for example, *education* clearly plays a role in abandonment in relation to intentional parents. With increasing level of education the likelihood of being an abandoner decreases. But coefficients comparing “successful realizer” and “postponer” show contradictory results. In the two Western countries there is no educational difference between intentional parents and postponers. In the two Eastern countries results are the opposite. In Bulgaria the people with higher education are more prone to postpone. Contrary, in Hungary, individuals with higher education are more inclined to realizing their short term intention. The results in Hungary suggest that people with higher education are more “knowledgeable” about their fertility decision and/or conflicting life goals, and the opportunity cost do not deter them from their fertility plans. Also The prevalence of 24 months long wage related parental leave could explain in Hungary why higher educated, formerly employed women had higher risk in realizing fertility intentions. In Bulgaria, on the contrary, perhaps perceived opportunity cost make the respondents postpone the realization of their short term fertility intentions.

The same conclusion could be drawn if considering religious denominations, as an example of ideational indicators in intention realization. The results of the effect of different denominations are selective and contradictory. In Hungary and the Netherlands non religious individuals seem to be more likely to postpone than realize their intentions. In the Netherlands, Roman Catholics have a significantly higher chance than those of any other denomination to realize their fertility intentions. In Switzerland there are no differences among Roman Catholics, Protestants, and non-religious people: only those belonging to “other religion” seem to postpone their intentions with a higher likelihood. In Bulgaria, surprisingly, non-religious attitudes in relation to Greek Catholics show lower likelihood of becoming abandoners than intentional parents. These results demonstrate that ideational factors are wise to include, but also indicate the need for further research on religiousness and religious denominations.

In case of economic activity other reasons may influence that no significant results have been found until now. Firstly, according to the literature gender differences related to labor market can be very strong. This requires the inclusion of gender perspectives. However, as mentioned

earlier separated models according gender could not build due to low sample size. Secondly, our “employment” variable is quite rough-and-ready. The “no-job” category includes many different statuses, especially in the case of women. Namely: unemployed, on parental leave, housewife, student, other inactive dependent, etc. However, also employed (job) individuals are quite heterogeneous in terms of their occupational status, entrepreneurial status, type of contract. We may need more refined employment status categories.

Table 3
Multinomial Regression Predicting Patterns of Realization of Time-Dependent Intentions
(Odds ratios predicting the risk being Intentional parent, Postponer or Abandoner)*

	Postponers				Abandoners ^a			
	Nether-lands	Switzer-land	Hungary	Bulgaria	Netherland s	Switzerland	Hungary	Bulgaria
Age	,990	1,094***	1,116***	1,045***	1,303***	1,080**	1,315***	1,170***
Female	1	1	1	1	1	1	1	1
Male	1,552	1,044	,883	,888	3,605***	,789	,486***	1,340**
Parity0	1	1	1	1	1	1	1	1
Parity1	,336***	,137***	,648**	1,457***	1,610	,240***	3,477***	5,679***
Parity2+	,463	,254***	,377***	,522**	2,842**	,575	5,196***	15,932***
Married at wave 1	1	1	1	1	1	1	1	1
Cohab at wave I	1,440	,601	1,163	1,115	1,170	,300**	,808	,490***
Alone at wave I	2,355	4,273***	4,198	6,845***	2,690*	6,993***	3,670***	3,019***
No lost partner	1	1	1	1	1	1	1	1
'Lost' partner	10,425***	3,767	4,150***	2,384***	9,455**	54,62***	6,232***	5,484***
Education	,948	,994	,945*	1,040*	,825**	,962	,848***	,935***
No job	1	1	1	1	1	1	1	1
Job	,640	,828	1,165	,937	1,394	1,708	1,150	1,052
Catholic**	1	1	1	1	1	1	1	1
Calvinist	3,539*	1,365	1,232		,991	,733	,934	
Other religion	5,757**	4,070***	,883	,941	,664	,857	,444**	1,009
No religion	2,629*	1,371	1,467	1,011	,988	1,930	1,039	,407***
Chi-Square:	119	122	432	745				
Df:	24	24	24	22				
Nagelk. R ² .	0.28	0.32	0.38	0.33				
N:	458	408	1069	2196				

*The reference category: „intentional parents”, those successfully realized their two years intentions within three years.

** In case of Bulgaria the reference category: ‘orthodox’.

5. Concluding remarks

We aimed at comparing factors influencing the likelihood of whether short-term fertility intentions are realized. We focused on the problem, whether the same factors (the same forces) lead to non-realization (postponement or abandonment) of fertility intentions. Since we used data, which was obtained from research focusing an alternative research questions, after the harmonization done by the authors, only a limited number of comparable variables (factors) could be utilized. However,

based on these limited number of variables, we could identify *very strong and mostly similar* kind of influences of social-demographic variables such as *age, parity and partnership* in all the studied countries. This shown us, that different social and demographic positions/status, such as young age, parity¹, stable partnership, establish a more positive milieu for intention-realization. Other demographic positions, on the other side, hinder the realization of intended behavior. Parallel to social status in social science, demographic positions seems to be key enablers and hinderers of fertility behavior.

At the same time, we also found interesting and important *country-specific differences*. The multivariate analyses revealed that the intention-behavior relation differ at some parities among the countries. Unintended childlessness is demonstrated for Switzerland, and the unintended increase of one-child families was identified in Bulgaria.

The clear influence of separation calls the attention to the more extensive and deeper consideration of intention realization within the life course development (cf. Liefbroer, 2009, Iacovue and Traves 2010). Further and other type of life course event will probably be as important as partnership break-down when understandings failure or success in realizing intentions.

The investigation of structural (socio-economic) and ideational factors was not that successful. Post-harmonization of the data sets enabled us to include only limited number of harmonized variables of that kind, and we were conditioned to construct quite rough variables. Consequently it is not unexpected that we could only show slight influences of these kind of factors. However we could demonstrate that structural and ideational factors also influence the realization of fertility intentions (cf. Spéder and Kapitány 2009). Further research should show, how and in what extent social positions (education, employment status, occupational status) on the one hand, and general ideational factors (perception of life, perceived anomie or partnership quality) could contribute to the success and failure of the realization of fertility intentions.

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Appendix:

A1. The main characteristics of the four surveys

	Netherlands	Switzerland	Hungary	Bulgaria
Name of the survey	'Netherlands Kinship Panel Survey' (Netherlands GGS survey)	Schweitzer Household-Panel (SHPSI.-SHPSII.)	'Turning Points of the Life Course' (Hungarian GGS survey)	Social Capital Survey
Fieldwork first wave	2003/4 (1st wave)	2004 (6th wave)	2001/2 (1st wave)	2002
Fieldwork second wave	2006/7 (2nd wave)	2007 (9th wave)	2004/5 (2 nd wave)	2005
Non-adjusted panel attrition (inclusive deaths, emigration etc.) between the two waves			17%	25%
Longitudinal sample size (Unweighted N)	6326		13540	7481
The number of people intending to have a(nother) child within two years (subsample, unweighted - N)	458	385	1056	2196
Weighting variables	Bweight0	WP07L1S	S2_suly	
Weighted subsample	493	409	1069	
Description of data, methods, field-work	Dykstra at al. 2007	Voorpostel at al. 2007	Kapitány ed. 2003 (in Hungarian)	
Home page of the surveys	www.nkps.nl	www.swisspanel.ch	www.demografia.hu	

A2. The formulation of the fertility intention questions in the different questionnaire programs:

NKPS (Netherlands)	SHPS (Switzerland)	HGGS (Hungary)	SCS (Bulgaria)
<i>Do you think you'll have {more} children in the future?</i> yes /no / don't know IF YES	<i>Do you intend to have a child in the next 24 months?</i> Yes / no Pregnant women: not counting the child you are currently pregnant with = another child in addition to the one you are expecting?	<i>Would like to have additional child(ren)?</i> Yes / pregnant-partner pregnant /no, does not want / cannot have more children /don't know IF YES	Do you intend to have (another) child during the next two years? <i>Definitely Yes</i> <i>Probably Yes</i> <i>Probably No</i> <i>Definitely No</i> Interviewer: if the respondent/partner is pregnant add: <i>besides the one you are expecting?</i>
<i>Within how many years' time would you like to have your {first / next} child? If pregnant / parter pregnant= 0</i>		<i>At what age would you like to have your next child?</i>	

A3. Means and Standard Deviations of Independent Variables

	Netherlands		Switzerland		Hungary		Bulgaria	
	Means	Std. Dev.	Means	Std. Dev.	Means	Std. Dev.	Means	Std. Dev.
Age	31,4	4,6	33,0	5,3	29,2	4,9	27,4	5,6
Sex (0-male; 1 female)	0,67	0,47	0,48	0,50	0,49	0,5	0,48	0,5

Parity1	0,41	0,49	0,37	0,48	0,30	0,46	0,33	0,47
Parity2+	0,14	0,34	0,18	0,39	0,17	0,38	0,25	0,43
Cohabiting at w1	0,31	0,46	0,19	0,39	0,19	0,40	0,13	0,34
Alone at w1	0,07	0,26	0,13	0,34	0,27	0,44	0,26	0,48
Separated from partner	0,02	0,14	0,02	0,15	0,04	0,19	0,03	0,17
Job	0,85	0,36	0,85	0,35	0,76	0,43	0,79	0,41
Education (continuous, classes)	14,6	2,1	13,2	2,7	11,7	2,5	11,6	2,85
Calvinist	0,18	0,38	0,34	0,47	0,15	0,35	-	-
Other religious denomination	0,06	0,23	0,08	0,27	0,11	0,31	0,14	0,35
Non-religious	0,57	0,50	0,13	0,34	0,21	0,40	0,09	0,28