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IDEATIONAL FACTORS AND PARENTHOOD. A GENDER- AND PARITY SPECIFIC ANALYSIS IN A POST-COMMUNIST SOCIETY

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Abstract

Our analysis aims at analyzing whether general values and familial attitudes had a role in becoming parent and in bearing a second or a third child in the post-communist society of Hungary experiencing a demographic transition. This analysis is all the more timely as cultural and ideational explanations play a very important role in the interpretation of recent demographic changes and also because excellent analytical opportunities are offered by the first two waves of a panel survey. The effects of religiosity, individualism- and anomie-scale, optimism, age norms, ideal number of children and gender roles are analyzed. Using parallel logistic regression models for male and female on the one side, and first and further births on the other side, we could show and compare gender- and parity-specific influences of ideational factors. The analysis will not allow us to test general theories of demographic transition, but enables collect arguments for their relevance.

Keywords:

Reproductive behaviour, fertility determinants, attitude, value orientation, gender differences, post-communist demographic transition, follow-up survey, Generation and Gender Program

1 Introduction

During the early 1990s, countries of Central and Eastern Europe witnessed the beginnings of a fundamental political, social and economic transition, in the course of which the centralized power structures in these countries were to be replaced by competitive democracy and the state-ownership-based redistributive economy by a private-ownership-based market economy. The whole institutional context of everyday life changed, consequently the circumstances of life course decisions and practices. Family formation could not remain untouched; radical demographic changes happened, cohabitation as first partnership spread rapidly, ratio of non-marital births increased, mean age at first birth continuously increased, the number of live births decreased drastically. All these changes clearly indicated that the reproductive model of the highly centralized state-socialist system, characterized by early entry into marriage, the comprehensive prevalence of marriage, early parenthood, low rate of childlessness, the dominance of two-children, two-earner families is over (Frejka 1980; Rychterikova 1999; Kamarás 2003).

It is not surprising that the first explanations concerning the radical decline of fertility in the ex-socialist countries focused on the elimination of institutional support of child bearing, the fall of economic output and the appearance of insecurity (unemployment) (Zapf and Mau 1993; Macura et al. 1998, 1999; Rychtarikova 1999). The key role of structural factors was also stressed by those approaches which drew attention to the impact of educational expansion on the decline of fertility (Kohler et al. 2002).

The theory of the second demographic transition (SDT) significantly opened up the spectrum of the possible explanatory factors and shifted the focus of the debate: the theory of the second demographic transition pointed out ideational factors (values and attitudes) as key factors in the demographic changes in Central Eastern European countries (Lesthaeghe – Surkyn 2004). This line of thought has been followed by several scholars in the region itself (Rabusic 2001; Sobotka et al. 2003). Among other explanations the concept of Thornton on "developmental idealism" also points toward the key role of values (Thornton 2006; Thornton – Philipov 2007), while the idea of 'social anomie' developed by Philipov is based on the inconsistency of structure and culture (Philipov, 2003).

This second group of explanations played a very important role in formulating our research questions. The primary goal of this paper is to answer the following questions: 1) do value-orientations and attitudes play a role in becoming a parent (in the birth of the first child and in having further children), and if so, 2) are males and females motivated by the same factors or not, 3) do these factors operate in the same way concerning the first and subsequent children.

Our analysis has been also shaped by that unique opportunity that we could utilize two waves of a panel survey developed within the European research cooperation, the Generation and Gender Program.[1] A panel survey like this allows to reduce the problems of interpretation related selection and adaptation and thus we can formulate a more clear-cut idea on the role of values in making demographic decisions.

It is very important to note already in the introduction, that although our results do indicate the impact of ideational factors on child bearing, they do

[1] See Vikat et al. 2007.

not allow to test the above mentioned theories. To collect empirical evidence for the determining role of cultural factors we should have comparable cultural ideational indicators for the pre and post transition period. This would allow the measurement of cultural change and analysing the links to demographic changes. However, the utilized database provides information on the attitudes and cultural behaviour of those surveyed only for the period after 2000.

Nonetheless the results of our analysis, even if indirectly, do provide arguments for the relevance of ideational/cultural approaches. In case in a society not completing the recent demographic transition we do not find that attitudes do have an impact, then it would be difficult to argue that cultural changes could have an important role in shaping demographic behaviour. But in case value orientations and attitudes do play a major role between 2001 and 2005 and the direction of the impact is in line with the ones assumed theoretically then it would be difficult to argue that cultural factors did not have a role in the demographic transition after 1989–90.

In the rest of the paper, first the relevant theoretical approaches as well as the social context in which childbearing behaviour are analyzed briefly. Then, we will present the dependent and independent variables used in the analysis. The analysis itself will be performed in two stages, each stage in two steps. Factors influencing (1) the birth of the first child, and (2) the birth of the second and third children will be identified by logistic regression analysis, separately by gender. Lastly, a short discussion will summarise the findings.

2 Theoretical Approaches and Interpretational Difficulties

General Values, Relevant Attitudes and Selectivity

When the role of values and attitudes in demographic behaviour or more concretely in childbearing is analyzed then the different approaches can be sorted into two type of approaches. The above mentioned *general approaches* for explaining tendencies of fertility are unified in their argument based on *general value orientations*. The SDT theory for example highlights autonomy and unboundedness in community ties, non-religiousness, self-realization, etc. (van de Kaa 1987); the ‘developmental idealism’ give a key role to ideals of development, gender equity; lastly, the ‘concept of anomy’ to powerlessness, disorientation, normlesness. Rokeach (1973), the founder of empirical analyses on values, defines these cultural contents as values, which can be understood as general and enduring orientations regarding basic modes of life and end-sates of human existence. These values rarely appear in their entirety in empirical analyses. The work of Moors is an exception, which investigates and demonstrates the impact of value orientations on fertility (Moors 2002). At the end we cannot disregard the fact, that religiosity is a suitable tool of measuring general value orientation and it is an obligatory variable in analyzing fertility (Westoff at al. 1977; Bumpass 2002). In designing the questions of GGS we made a huge effort to measure general value orientation (see. Vikat et al. 2007. 418–419). During this present analysis we experimented with several variable of value orientation and the ones found significant will be presented in the next section.

The approaches analyzing the direct impact of ideas related to family, children and gender roles are much more common in empirical research.

This is the starting point of the 'theory of reasoned action' which is widely used in explaining demographic behaviour (Ajzen 1988).[2] Such an approach frames the research program of Barber and his colleagues according to whom the attitudes of the interviewed person, the ones concerned and those of their mothers (the preferred number of children) all influence the childbearing behaviour of the analyzed people (Barber et al. 2002). Shoen and his colleagues have demonstrated that fertility intentions, especially the certainty of intentions have the grates impact on individual fertility (Schoen at al. 1999). According to the analysis of Billari and Liefbroer age norms play a crucial role in explaining who at what age leaves the parental home (Billari – Liefbroer 2007). Bumpass controlling all other factors found that the divorce of those people is more likely, who experience greater family tensions and who are dissatisfied with the quality of their relationship (Bumpass 2002). These analyses clearly demonstrate that relevant, closely connected attitudes play a very important role in real decisions, in the actual demographic behaviour. The attitudes directly related to childbearing behaviour and used in our analyses will be also presented in the next chapter in a detailed manner.

In analyzing the impact of cultural factors we have to note, that the question 'to what extent values are causes or consequences of demographic practices' can be answered properly only on the basis of panel studies (Lestaeghe – Moors 2002; Clarkberg 2002). Researchers have, for a long time, clung to the notion that values are constant and values change only when new generations appear (Inglehart 1987; Moors 2002). According to this assumption, the strong correlation between the indicators of childbearing behaviour (mean age of becoming a parent, number of children) and the attitudes toward childbearing (refusing childlessness, owing high values to children, ideal number of children) would be the consequence of diffusion of new attitudes and orientations based on/triggered by the entry of new generations into adulthood. But demographic analysis of life course events (Waite et al. 1986; Beets et al 1999; Clarkberg 2002) pointed to the phenomenon of adaptation – the fact that attitudes closely bound up with life course events may undergo a change and the spread of new modes of behaviour is followed by the adaptation of value orientations and attitudes. It is obvious, that only a panel survey can help in separating the effects of the two mechanisms. To overcome this problem, our study relies on *ideational characteristics of individuals* which clearly describe the individuals *prior to the examined event* (childbirth).

[2] Ajzen utilize the meaning of attitude in his social-psychological theory in a more restricted way, and contrasts it with the general usage of attitudes. „Unlike general attitudes toward institutions, people, or objects that have traditionally been used by social psychologists, the attitude is the individual's positive or negative evaluation of performing the particular behaviour' (op.cit.:117).

Gender

The economic theory of fertility explicitly argues, that the status of men and women in the partnership and the relation between those directly influence childbearing behaviour (Ermisch 2002). The income effect is dominantly related to the status of men, while opportunity costs/forgone income to the status of women. Or there is a need for a division of labour within the family, which then leads to the specialization of gender roles. Historical analyses also have clearly demonstrated that women and men perform different roles.

Research on fertility based on micro data dominantly utilize information on women in their fertile period and in the models explaining childbearing behaviour mainly include characteristics of women and potential mothers. Naturally men are not completely excluded, as for instance they are key figures in determining the income position of the family or in partnership relations they do appear in the models. But the analyses are based on the traits of women: their educational level, occupation, activity history, their socialization measured by the familial behaviour (possible divorce) of their parents, their religiosity, attitudes toward gender roles are used as explanatory factors. Thus we have to agree with those, who stress that we should incorporate gender relationships and characteristics in a more detailed way into demographic understandings (Goldscheider – Kaufman 1996; McDonald 2000; Olah 2003; Vikat et al. 2007).

In our research we analyze women and men separately and in a parallel way. This approach is justified by the assumption that varying structural position of men and women (educational level, income) might influence childbearing decisions differently and also by the hypothesis that the impact of attitudes might be of different strength. Also different components of the relevant attitudes might be significant.

At the same time it is to be noted that we do not utilize a general gender perspective as suggested by McDonald (2000). We cannot incorporate for instance the division of labour, the internal power structure of the (married) partners (see Mills et al. 2008). In our analysis gender is included in two ways 1) we do analyze the impact of gender roles and attitudes and 2) we separately analyze the attitudes of women and men.

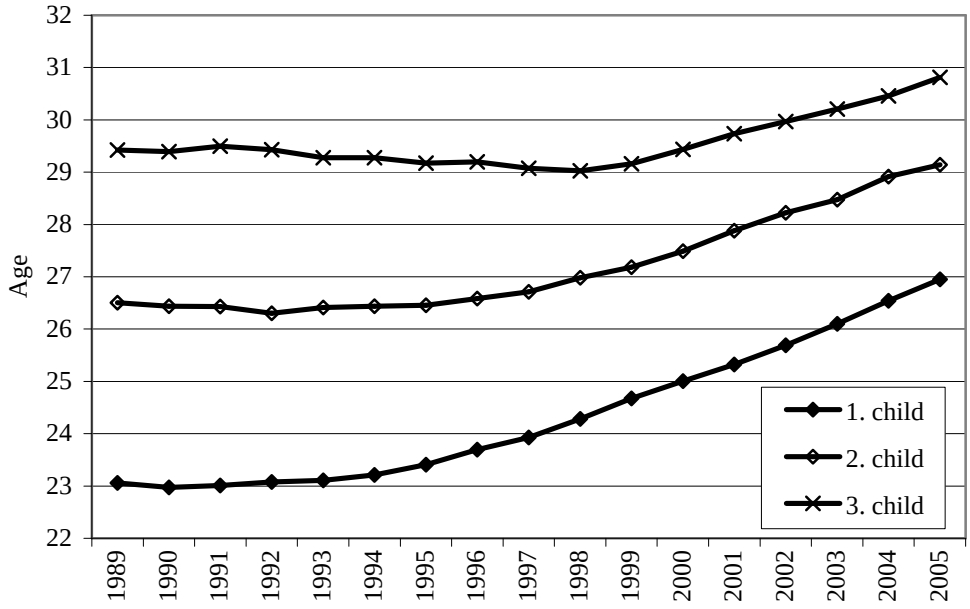
Historical Context

We are looking at ideational factors in a society in transition, between 2000–2004, the years which represent a later phase of the demographic transition period. At the beginning of the new millennium the radical shift in behaviour, the drastic transformation of family formation was not yet over in Hungary. The average age at the birth of the first child is one of the most significant indicators of postponement and change (Figure 1). This was 23.0 years among women in 1990. A decade later it was higher by two full years. It continued to increase and was at 26.5 in 2004, at the time of the second wave of data collection. Similar continuous increase was recorded in the mean ages of people having their second and third children. During the period of our analysis – from 2001 to 2004 – the postponement of becoming parents was therefore not yet finished.[3] This context will affect the interpretation of the results. Our results will reflect the impact of two inseparable effects on childbearing behaviour: 1) the ideational effects

[3] A more comprehensive description and analyses of the recent demographic changes in Hungary could be found: Kamarás 2003; Spéder 2006.

prevalent in the final period of transition; 2) the impacts differentiating behaviour within the new reproductive models yet to emerge.

Figure 1
Mean Age of Mothers' at First, Second and Third Births, Hungary, 1989–2005



Source: Demographic Yearbooks, vital statistics, HCSO.

3 Data, Variables

In our investigation we used the data gained from two waves of the Hungarian panel survey *"Turning Points of the Life Course"*.[4] The survey-program was worked out in close relation with the European "Generation and Gender Program (GGP)" (cf. Vikat et al. 2007), is identical in concept and design, however the questionnaire program of the first wave exhibits strong divergence from the core questionnaire of the GGS. The first wave of data collection of the Hungarian follow-up survey was carried out between November 2001 and March 2002. Fieldwork for the second wave was conducted between November 2004 and July 2005. In the second wave, we managed to contact 85.4% of the first wave surviving respondents. The initial sample was representative according gender, type of settlement, people aged 18–75 in 2001/2002, the sample size was 16,364.

For the present analysis we have created our models simultaneously on four sub-samples. We have looked at males and females separately in the two groups of (1) childless people and (2) parents (one or two children). In creating the sub-samples we reduced the sample according to the following considerations. Firstly, because of extremely low rate of childbirth we limited our analyses to younger respondents.[5] Secondly we excluded from the analysis of childless having an uninterrupted student status between the two waves. Finally, in the course of analyzing ideational factors influencing the decision to have a second and a third child, we only took those into

[4] For more details of the concept and design see Spéder 2001.
[5] In case of childless: female: 18–35; male: 18–38; in case of parents: both sexes age 18–39.

consideration who were living in a partnership at the time of the first wave of data collection. These limitations decreased the sample-size somewhat, however increased the homogeneity, which gave us greater opportunity to measure the effects of ideational factors. (See Appendix for the variable distribution in the four sub-samples.)

Our dependent (explained) variable shows whether the respondents had a child born to her/them during the period between the first and second wave of the data collection. Females with known pregnancies at the time of the second wave were categorized as giving births after the first wave. Since our objective was to examine value orientations influencing childbearing, women who had been pregnant and men whose partner was already pregnant at the time of the first wave were excluded.[6]

Our independent variables characterize the respondents at the time of the first wave. This feature of the model – that the dependent and independent variables being separated in time – allows us to regard the independent variables as causal factors. The explanatory and control variables used in the model can be summarized as below:

Childless sample	Parents with one or two children sample
Ideational variables	
ideal age for first child	
ideal number of children	ideal number of children vs. actual number of children
partnership ideal	partnership ideal satisfaction with partnership
gender role ideal	gender role ideal
work vs. children	work vs. children
anomie-index	anomie index
future orientation	future orientation
Religiosity	religiosity
Control/structural variables	
Age	
	time since the birth of the last child
partnership status	
income class	income class
level of education	level of education
number of brothers/sisters	number of brothers/sisters
Live with parents	

To measure the effect of *values* and *attitudes*, we created variables of general orientations and as of specific, childbearing related ones. Of the attitudes and ideas closely related to childbearing, we first underscore the *age norm* associated with the birth of the first child and the variable of the *ideal number of children.* Regarding the first one, we used the age which is generally regarded as "ideal" for becoming a parent by people of the same gender as the respondent, in other words, we took the general *perceived age norm* into consideration. We set up three categories for this variable: (1) *Early* (ideal age for becoming a parent under 25) (2) *Average* (25 for women, 25-30 for men) and (3) *Late* (ages older than these). The *ideal number of children* offered by the respondents is closely related to the planned number of children. The variable is constructed differently for parents and non-parents: for childless people, we used the ideal number of children, for parents, the difference between the ideal and the actual number

[6] Respondents whose child was born within 6 months following the first wave were also excluded.

of children (one or two). As it is apparent, our goal was to include in our models – for both the timing of childbearing and the number of children – the conditions regarded by the respondents as ideal and not their personal childbearing intentions.

It was a clear objective of our research strategy *not to include manifest fertility intentions* in the present models, since these largely come into existence as a result and consequence of the investigated attitude (Philipov et al. 2006) and our present objective is to measure the effects of values and attitudes. The inclusion of intentions – which reflect the effects of attitudes – into the model, only would interfere with our ability to measure the direct effects of attitudes.

Initially and in accordance with the concept of SDT framework we ascribed great importance to *partnership quality*. The "satisfaction with partnership" variable designed to measure this could only be included in the course of analyzing the second and third births, since a significant part of the childless group was not cohabiting at the time of the first wave. Besides the satisfaction variable, we also worked out an attitude variable to measure the extent of individualization with regards to partnerships. The *partnership ideal* variable combines two different perspectives (opinions). One is sought through the question whether the individual's independence was important in a partnership, the other whether it was important to tie the knot and enter into a legal marriage once a child has been conceived. On the basis of these two variables, we differentiated between *individualist – mixed – traditionalist* partnership ideals, the last one observes community bonds and norms the fullest.

We designed a 6-component index to measure *social anomie* (cf. Srole 1956; Philipov et al. 2006). This index involves lack of orientation, perception of life as meaningless, powerlessness, disorientation, normlessnes, alienation from work and loneliness.

As responding to the idea of 'relative deprivation' (Easterlin 1987) and insecurity (Ranjan 1999) we constructed a variable measuring *future outlook* (optimism vs. pessimism). In creating this latest we rescaled the responses to the question "How satisfied are you with your future perspectives?" from an 11-point scale (from 0 to 10) into three categories: pessimistic (0 to 3 points), average (4–8) and optimistic (9–10). This variable seemed to incorporate the effect of the feeling of anxiety.

Orientations and role conceptions regarding *gender roles* tend to be general but can also be tied to the family. In the present analysis, we measured the degree of agreement with the statement, 'Women with a good profession and good job are right to consider work more important than having more children.' Responses were categorized into *modern – doubtful – traditional* (gender role conceptions). We also included attitudes towards female roles reflecting the work vs. family dilemma in the model. This variable also has three categories: *family-oriented – doubtful – career-oriented*.

Of the general value-orientations, we included the variable measuring *religiosity* which can take four values between 1 (not religious) and 4 (religious).

There are similarities and differences in the models describing parents and non-parents with regards to *control variables*. All models care for education and income, the most important and frequently used indicators of social status, and the number of siblings, as a coarse but significant indicator

of the socialization environment. Our *income variable* is based on equivalent household income broken down into three terciles: low – average – upper.[7] *Age-specific effects* are controlled differently among childless people and parents: Among the women childless in 2001, we set up three age groups: 18–21, 22–26 and 27–35 – among the men, these were 18–23, 24–28 and 29–38.[8] In models explaining subsequent childbearing decisions of among parents, aged 18–39 in 2001, "time elapsed since the birth of last child" (continuous variable) was used instead of the strongly related variable respondent's age, as a control variable. We incorporated two special control variables into the model for childless people: partnership status and whether the respondent lived in the parental house.

From the perspective of the present study, *partnership status* might be regarded as a structural situation from the point of view of childbearing. At the same time we should not forget that partnership status might also reflect attitudes and value orientations. In other words, a partnership status might be a "result" of a person's value orientations (Barber et al. 2002). Taking into consideration the form and the length of time spent with the partner six categories of childless people set up: (1) living alone, no partnership (2) partnership but no cohabitation ["dating"] (3) cohabiting, for less than three years (4) cohabiting, longer than 3 years (5) married, recent partnership, cohabiting less than 3 years (6) married, cohabiting longer than 3 years.[9]

The logistic regression method provides relative measures with regards to a *reference person*. In our models, the reference persons are obviously different among childless people and parents. Reference categories are indicated by the value of 1 in the tables.

4 Findings

Receiving the First Child, Becoming a Parent

Tables 1 and 2 show the effects of the different variables among women and men respectively. Both tables are divided into five columns. The first column represents the uncontrolled effects which could be used as a reference when comparing the values in the various models. In the first model (Column 2) we only measure the combined effects of ideational variables, while Column 3 only shows the combined effects of control variables. In the third and fourth model ideational influences are measured in models where control variables are included. The difference between the third and the fourth (final) model is that in the former partnership status is not represented. This allows us to clarify the correlation between partnership status and ideational variables, since it is possible that a given attitude variable is a "consequence" of the partnership relation (adaptation)[10] or it may have played a part in bringing the partnership about (selection).

On the basis of the findings of the analysis performed on the sample of *women*, we can say that *norms* associated with childbearing, the age norm of having the first child ("ideal age to become a parent") has an impact on the actual event of childbearing, while the ideal number of children – where

[7] The 'economies of scale' in consumption is measured by elasticity e = 0.73.

[8] The reason for the uneven segmentation is that we tried to make three proportionate groups out of the sample based on childbirths.

[9] Changes in partnership status between the two waves and its relation to childbearing are disregarded in the present analysis.

[10] The findings of Waite et al. 1986 on the effects on non-conformist forms of cohabitation suggest this as likely.

positive deviances from the average reflect a family-centered attitude – has no impact. Those who think an earlier age is more ideal for becoming a parent are twice as likely to have their first child than those who indicated a later age as ideal (0.55). While it is true that someone is more likely to become a parent if she indicated an earlier age as ideal for becoming a parent, the same thing is not true for the ideal number of children: those who indicated a higher number as being ideal are not any likelier to have their first child. The significance of the effect of the variable "ideal age" disappears if containing the variable of partnership type, though there is hardly any change in the value of odds ratios. It is our assumption that partnership situation and the norms ideal age for becoming a parent mutually influence each other, but we cannot separate the relations.

The effect of the variable measuring *partnership ideal* is clear and significant in all models with closely constant odds ratios. Less than half (0.44) of the 'individualistic' women get the first child with less than a half risk (0.44) compared to women having traditional view about partnership.

We initially expected the *gender role conception* to have an effect on becoming a parent – we presumed that those with a more traditional attitude are more likely to become parents. However, among childless women, ideas and attitudes regarding gender roles do not seem to essentially influence the chances of becoming a parent. Even if according to uncontrolled effects career-oriented women are less likely (0.74) to become parents than family-oriented women, this effects disappears in multi-variate models and the differences between the odds ratios also decrease.

General value-orientation and *perception of the quality of society* do not exhibit any significant effects on childbearing among childless women. Neither the intensity of religiosity, nor the intensity of perceiving social anomie, nor future orientations had any effect on whether they had a child born to them in the three years under investigation.

As for our findings among *males,* some factors were observed to exert influences similar to what we found among women, still, the findings were far from identical. The effect of *age norms* is identical among men and women and the effect of the *ideal age* for becoming a parent retains its significance until the final model, even after the inclusion of the partnership variable. According to the final model, of those indicating a later age as ideal for becoming a parent exhibit less than half (0.43) of the risk getting a child during the investigated period as compared to those indicating an earlier age (Table 2). Unlike in the case of women, partnership ideal among men had no impact on childbearing chances. Similarly to women, however, views on the ideal number of children have no impact on becoming a parent. The same is true for the gender role conception of men.

In the area of *general value-orientations,* significant male-specific association emerge: their *future outlook* shows significant effect until the next-to-last model. The 'optimistic' ones have more than twice higher risk (2.4) to have children, according to the 'no partnership' model than the "pessimistic" ones (Table 2). In the final model which also includes the partnership variable, the odds ratio decreased only a little (down to 2.14) while the significance of the effect of the variable disappears. It is a question whether the partnership situation influences the individual's optimism or the individual's optimism influences one's partnership situation. Because of the relatively high odds ratios at the final model, we assume that *men's future outlook is undoubtedly relevant from the*

perspective of childbearing. The remained two general value-orientations (anomie and religiosity), similarly to woman, seem to have no influence on the risks becoming a parent.

Of the control variables, we will only stress the strong, overall influence of the *partnership status*: the effect for both males and females is significant, comprehensive and in keeping with the expectations. Married couples are likelier to have children than cohabiting ones, while the latter are likelier to have the first child than those who are only dating. Women living in a marriage for a short period of time are over ten times (11.83) more likely to have their first child than those without partner – this figure for men is 19.55. The same women are three times (2.93) and the same men are about three-and-a-half times (3.58) more likely to have their first child than those who have been cohabiting for a short time. It is no surprise that of those people who are not living with a partner, those exhibits a higher risk for getting the first child who are in some kind of partnership. And even those involved in such a not tied up form of partnership as dating are significantly more likely to have children than those not in a partnership. These findings reinforce the common wisdoms that (1) a partnership is a precondition for childbearing (2) a traditional form of partnership (marriage) exhibits higher risks for childbearing than the more 'newer' form of partnership (cohabitation). There is however, one surprising result we did not expect to see: the odds ratio becoming a parent in the case of women living in long marriages (for over 3 years) is lower (3.70) than among cohabiting people.[11] This finding requires further exploration.

[11] It could be that the childless long-run married group is a selective one in fecundity, however.

Table 1

Odds Ratios of Logistic Regression Models Analysing the Risks of Giving Birth to the First Child (Female) (Sample Size, N = 1094)

Independent variables, categories	Uncontrolled effects	'Ideational-variables model'	'Control-variable model'	'No partnership model'	Final model
	Exp. (B)	Exp. (B)	Exp. (B)	Exp. (B)	Exp. (B)
Ideal age	***	***		***	
Early (ref.)	1	1		1	1
Average	0.78	0.81		0.92	0.97
Late	0.45	0.49		0.55	0.68
Ideal number of children					
0–1 (ref.)	1	1		1	1
2	1.36	1.34		1.23	1.28
3+	1.39	1.31		1.22	1.30
Partnership ideal	***	**		***	***
Traditionalist (ref.)	1	1		1	1
Mixed	0.63	0.65		0.62	0.63
Individualistic	0.44	0.49		0.44	0.44
Gender role					
Egalitarian (ref.)	1	1		1	1
Doubtful	0.73	0.73		0.73	0.82
Traditional	1.14	0.96		0.91	0.98
Female role (work vs. family)	*				
Family oriented (ref)	1	1		1	1
Doubtful	0.66	0.69		0.71	0.73
Career oriented	0.74	0.88		0.90	0.93
Anomie-index (continuous)					
(extent of Influence)	1.01	1.00		0.99	1.00
Future orientation					
Pessimistic (ref)	1	1		1	1
Modal	1.04	1.07		1.18	1.25
Optimistic	1.01	1.03		1.10	1.08
Religiosity (continuous)					
(extent of influence)	0.93	0.97		0.97	0.98
Age group				**	
Young (ref.)	1		1	1	1
Medium age	1.35		1.09	1.51	1.28
„Old"	1.26		0.94	1.26	1.15
Partnership status	***		***		***
Alone (ref.)	1		1		1
Partner apart	1.94		1.88		1.78
Cohabitation, short	3.31		3.84		3.58
Cohabitation, long	4.38		4.61		4.47
Marriage, short	10.32		12.51		11.03
Marriage, long	3.68		4.32		3.70
Income class			**		*
Lower (ref.)	1		1	1	1
Medium	1.04		1.05	1.08	1.07
Upper	0.83		0.67	0.84	0.69
Level of education	***		**	**	*
Low (ref.)	1		1	1	1
Medium	0.51		0.57	0.59	0.62
High	0.58		0.74	0.63	0.77
Number of siblings (continuous)	**				
(extent of Influence)	1.29		1.11	1.12	1.11
Living with parents	***			***	
No (ref.)	1		1	1	1
Yes	0.55		1.27	0.56	1.21
Nagelkerke R^2		0.05	0.14	0.08	0.17

Note: ***sig.:<0.01; **sig.:<0.05; *sig.:<0.1.

Source: own calculations, 'Turning points of the Life-course', 1st and 2nd wave, HCSO Demographic Research Institute, Budapest.

Table 2

Odds Ratios of Logistic Regression Models Analysing the Risks of Giving Birth to the First Child (Male) (Sample Size, N = 1480)

Independent variables, Categories	Uncontrolled effects	'Ideational-variables model'	'Control-variable model'	'No partnership model'	Final model
	Exp. (B)	Exp. (B)	Exp. (B)	Exp. (B)	Exp. (B)
Ideal age	**	**		**	**
Early (ref.)	1	1		1	1
Average	0.93	0.89		0.95	1.11
Late	0.35	0.33		0.35	0.43
Ideal number of children					
0–1 (ref.)	1	1		1	1
2	0.83	0.72		0.70	0.84
3+	1.01	0.81		0.70	0.76
Partnership ideal					
Traditionalist (ref.)	1	1		1	1
Mixed	0.85	0.83		0.94	0.99
Individualistic	0.87	0.88		0.84	0.91
Gender role					
Egalitarian (ref.)	1	1		1	1
Doubtful	0.86	0.91		1.05	1.31
Traditional	0.81	0.80		0.87	0.97
Female role (work vs. family)					
Family oriented (ref)	1	1		1	1
Doubtful	0.85	0.94		1.05	1.26
Career oriented	1.00	1.03		1.06	1.31
Anomie-index (continuous)					
(extent of Influence)	0.98	0.99		0.99	0.99
Future orientation	**	**		**	
Pessimistic (ref)	1	1		1	1
Modal	2.62	2.62		2.26	2.07
Optimistic	2.94	2.83		2.40	2.04
Religiosity (continuous)					
(extent of Influence)	1.00	1.02		1.03	1.07
Age group	***		**	***	**
Young (ref.)	1		1	1	1
Medium age	2.72		1.41	1.95	1.54
„Old"	1.99		0.71	1.07	0.83
Partnership status	***		***		***
Alone (ref.)	1		1		1
Partner apart	2.33		2.29		2.35
Cohabitation, short	7.65		5.16		5.48
Cohabitation, long	6.61		5.45		6.11
Marriage, short	28.26		19.16		19.55
Marriage, long	12.89		10.39		10.27
Income class					
Lower (ref.)	1		1	1	1
Medium	1.30		0.96	1.13	0.92
Upper	1.27		0.93	1.05	0.89
Level of education					
Low (ref.)	1		1	1	1
Medium	0.66		0.63	0.70	0.63
High	0.97		0.74	0.89	0.81
Number of siblings (continuous)	*				
(extent of Influence)	1.26		1.12	1.23	1.13
Living with parents	***		**	***	**
No (ref.)	1		1	1	1
Yes	0.19		0.56	0.20	0.59
Nagelkerke R^2		0.03	0.25	0.19	0.27

Note: ***sig.:<0.01; **sig.:<0.05; *sig.:<0.1.

Source: own calculations, 'Turning points of the Life-course', 1st and 2nd wave, HCSO Demographic Research Institute, Budapest

Ideational Factors Influencing Birth among First and Second Child Parents

At first glimpse, the effect of ideational factors seems to be more wide-ranging in the case of second or third child than the first one, since as far as the uncontrolled effects are concerned, 7 of the 8 ideational variables in the case of women (Table 3) and 5 of 8 in the case of men (Table 4) exhibit significant effects. The higher explanatory power of the models (Nagelkerke's R^2) also supports this statement.

Directions of the effects of various factors usually follow the expectations. Women, according to uncontrolled effects, are more likely to have children if: they deem a higher number of children ideal, hold more traditional views on partnerships, are more satisfied with their partnership, have a more traditional view of general gender roles, are more oriented towards children than work, are less conscious of social anomie, more optimistic and more religious (Table 3). Among the men, much the same indicators describe the ones who are more likely to have another child – the difference is that partnership ideal, gender role ideal and religiosity have no significant effects (Table 4). The observable uncontrolled effects are obviously altered in the multi-variate model: some of them lose their significant role but in a single case an opposite change is observable.

Three ideational factors influence the likelihood getting another child among *women*, throughout in all models significantly. The *ideal number of children* has a clear effect of on whether or not the respondent had a child conceived in the period under investigation. Wherever the ideal number of children is one higher than the actual number of children there is higher risk (1.66) for the birth of the next child compared to people whose ideal number is identical or lower than the actual one. The same figure for respondents whose ideal number is much greater than the actual, this ratio is 6.35. (Let us repeat that this variable produced no significant effect in the case of childless people.) The effect of *gender role attitudes* is uneven but observable throughout: Women with more traditional gender role conceptions are more likely (1.54) to have another child than those who profess gender role equality. Those deeming career-oriented women role are much less likely (0.65) to have another child than those who prefer family-orientedness. The effect of *religiosity* continues to be significant throughout, in keeping with expectations: the less religious the person is, the less likely she is to become a parent (0.83).

The variables measuring the quality of partnerships, the scale of perceived anomie and the future outlook variable no longer show significant effects in the multi-variate model. It is however a fact that those who had children in the period under investigation had been more satisfied with their partnerships in 2001 than those who had no children in this period (cf. Table 3, uncontrolled effects).

The effects observable in the final model for *men* are mostly different from what we saw in the case of women. In our model containing only ideational variables, the effect of the norm of "ideal number of children" is significant, but this disappears in the final model, presumably due to the inclusion of the parity variable. In keeping with expectations, the effect of *partnership ideals* is very stable, unlike in the case of women. Those preferring an "individualistic" partnership ideal are half as likely (0.44) to have children than those professing traditional partnership ideals. Similarly to childless males and unlike in the case of women, *future outlook* is the most stable factor in the case of male parents. Those assigned 'optimist'

have over twice higher risk (2.26) to have another child than those in the 'pessimist' bracket.

With regards to male parents, we would like to point out that of the uncontrolled effects, the perceived anomie-scale appears to be significant (0.95) – but this also disappears at the inclusion of the future outlook variable. In this regard, we assume, the two variables measure similar aspects of orientations.

Table 3

Odds Ratios of Logistic Regression Models Analysing the Risks of Giving Birth to the Second and Third Child (Female) (Sample Size, N = 1322)

Independent variables. Categories	Uncontrolled effects	'Ideational-variables model'	'Control variable model'	Final model
	Exp. (B)	Exp. (B)	Exp. (B)	Exp. (B)
Ideal number of children	***	***		***
Less (ref.)	1	1		1
Same	1.20	0.91		0.92
More	3.86	3.06		1.66
Much more	16.93	12.99		6.35
Partnership ideal	*			
Traditionalist (ref.)	1	1		1
Mixed	0.58	0.60		0.68
Individualistic	0.67	0.77		0.98
Satisfaction with partnership (continuous)	***			
(extent of influence)	1.65	1.35		1.20
Gender role		*		*
Egalitarian (ref.)	1	1		1
Doubtful	0.91	0.90		0.71
Traditional	1.41	1.55		1.54
Female role (work vs. family)	**			*
Family oriented (ref.)	1	1		1
Doubtful	0.60	0.67		0.57
Career oriented	0.63	0.69		0.65
Anomie-index (continuous)	**			
(extent of influence)	0.94	0.96		0.98
Future orientation	**			
Pessimistic (ref)	1	1		1
Modal	1.37	1.20		1.27
Optimistic	2.20	1.71		1.53
Religiosity (continuous)	**	*		*
(extent of Influence)	0.80	0.83		0.83
Birth parity	***		***	***
first child (ref.)	1		1	1
second child	0.27		0.35	0.56
Time since last birth (continuous)	***		***	***
(extent of influence)	0.79		0.80	0.81
Income class	**		**	
Lower (ref.)	1		1	1
Medium	1.05		1.01	0.99
Upper	1.64		1.49	1.54
Level of education	***		***	
Low (ref.)	1		1	1
Medium	0.61		0.49	0.59
High	1.11		0.83	0.72
Number of siblings (continuous)				
(extent of influence)	1.12		1.29	1.27
Nagelkerke R^2		0.18	0.23	0.29

Note:: ***sig.:<0.01; **sig.:<0.05; *sig.:<0.1.

Source: own calculations, 'Turning points of the Life-course', 1st and 2nd wave, HCSO Demographic Research Institute, Budapest.

Table 4

Odds Ratios of Logistic Regression Models Analysing the Risks of Giving Birth to the Second and Third Child (Male) (Sample Size, N = 830)

Independent variables. categories	Uncontrolled effects	'Ideational-variables model'	'Control variable model'	Final model
	Exp. (B)	Exp. (B)	Exp. (B)	Exp. (B)
Ideal number of children	***	***		
Less (ref.)	1	1		1
Same	1.17	1.04		1.04
More	4.09	3.30		1.31
Much more	8.19	7.71		2.78
PAR*tnership ideal*	*	*		*
Traditionalist (ref.)	1	1		1
Mixed	0.61	0.59		0.62
Individualistic	0.48	0.47		0.44
Satisfaction with partnership (continuous)				
(extent of influence)	1.17	1.08		1.07
Gender role				
Egalitarian (ref.)	1	1		1
Doubtful	1.28	1.64		1.87
Traditional	0.87	0.88		0.91
Female role (work vs. family)	**			*
Family oriented (ref.)	1	l		1
Doubtful	0.50	0.59		0.49
Career oriented	0.57	0.63		0.66
Anomie-index (continuous)	*			
(extent of influence)	0.95	1.00		1.03
Future orientation	***	**		**
Pessimistic (ref.)	1	1		1
Modal	1.21	1.05		1.17
Optimistic	2.62	2.20		2.26
Religiosity (continuous)				0.27
(extent of influence)	1.02	1.06		1.04
Birth parity	***		***	***
first child (ref.)	1		1	1
second child	0.21		0.27	0.33
Time since last birth (continuous)	***		***	***
(extent of influence)	081		0.83	0.84
Income class	***		*	***
Lower (ref.)	1		1	1
Medium	0.89		0.88	0.82
Upper	1.87		1.59	1.59
Level of education	**			
Low (ref.)	1		1	1
Medium	1.03		1.16	1.23
High	2.02		1.65	1.76
Number of siblings (continuous)				
(extent of Influence)	0.94		1.09	1.03
Nagelkerke R^2		0.15	0.22	0.27

Note:: ***sig.:<0.01; **sig.:<0.05; *sig.:<0.1.

Source: own calculations, 'Turning points of the Life-course', 1st and 2nd wave, HCSO Demographic Research Institute, Budapest.

The comparison of the explanatory power of the models (Nagelkerke's R^2) helps us to understand ideational influences according parity and gender. Comparing alongside parity, it is apparent that the combined explanatory power of the ideational variables among the childless is considerably lower than in the case of parents. Measuring the additional effects of ideational variables, the difference between "control variable model" and "final model", we find a slight additional influence among childless, whereas a more pronounced extra influence among parents. Concerning gender differences, we found that the explanatory power of the

models including only ideational variables was greater for women. This however was not true for final models. The reason for this difference is the dissimilar explanatory power of control variables. While the combined explanatory power of the control variables is much stronger for childless males than for childless females, this difference could not be observed in the models for parents. Therefore, there is no gender difference between the explanatory powers of the models in case of parents. On the contrary, the models based on the childless samples not only possess less explanatory power, but the strength of this power varies by gender.

5 Conclusions and Discussion

The present paper looked at the effects of general values and family and fertility-related attitudes on childbearing behaviour in Hungary, in a former state socialist country, where demographic behaviour – more specifically childbearing practices – is undergoing transformation. Data collected by two waves of a follow-up survey were used in the analysis. The dependent variable indicates whether the respondent had a child born between the two waves of data collection or not. The explanatory variables contained information from the first wave, thus it was possible to separate selection and adaptation processes, more precisely we could explore the selection effects of ideational factors (norms, attitudes, conceptions). We conducted simultaneous analysis on four sub-samples. We looked at (1) men and women, (2) childless adults and parents of one or two child.

We could clarify that *ideational factors play a significant role in childbearing.* We learned that after the birth of the first child, subjective factors play a wide-ranging role, and we could also reveal that in both the initial and the final models, values and attitudes influence the likelihood getting a(nother) child in a gender-specific manner.

Norms and *ideas* professed by the respondents play a significant part in the birth of the first child as well as in the birth of subsequent children. But while in the case of the birth of the first child and its timing, the primary role is played by the *age norm* for becoming a parent, in the case of the second and third child, it is the *norm of the ideal number of children* that is of major importance. (We were surprised to see that this latter norm had no effect on the likelihood of the birth of the first child, even though such effect mechanisms have been documented in the literature – e.g. Barber et al. 2002.) These findings demonstrate that shared ideas in modern societies that supplanted traditional community and class norms also fulfil a behaviour regulating role and thus play a part in childbearing decision. Our findings are highly consonant with theoretical approaches focusing on age-norms and age-grading (Settersten – Hagestaad 1996; Billari – Liefbroer 2007).

Having experimented with a large number of variables in the course of the modelling, we have come to the conclusion, that – in order to measure the degree of individualization and autonomy in relation to childbearing – *partnership ideal* was the most suitable indicator to be included in our models analyzing childbearing behaviour. According to the results, those who place a premium on individual autonomy, even if in a partnership, and refuse adjusting their partnership to community bonds, are less likely to have children. This statement, however, is only true for childless women and male parents. This result, similarly to the effect of religiosity variable,

fits well into the interpretative framework of the second demographic transition. Our finding, that among parents, the conception of gender roles exerts an influence of the number on children can also be tied to this approach.

The perception of the quality of social coexistence (anomie index, general future outlook) primarily impacts among men. Out of the variables we looked at – including the anxiety-scale omitted from the present analysis – it is the *general future outlook* (optimistic vs. pessimistic) that best captures the attitude which clearly influencing men's decisions to have children. For the moment, it is difficult to say whether this provides arguments for Easterlin's approach (the theory of relative deprivation containing future perspectives), or for the idea of "social disorder and anomie", or for the approaches emphasizing the importance of the role of insecurity. In fact, the mentioned result could be element of *a new gender-conscious framework.* The gender specific influence of labour market position and personal income level is well-known in the economic. In the present paper we could show that dissimilar gender-related attitudes play a role in fertility decisions. In general we may claim that *among women, it is fertility- and family-specific attitudes and norms that play a more significant role while in the case of men, the role of general perspectives* is more pronounced. The influence of gender role ideas could be linked also to a gender-conscious approach.

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Appendix

Table 1
Distribution of the Used Categorical Variables

Independent variables, categories	First child		Second- and third child	
	female	male	female	male
Ideal age				
Early (ref.)	14.7	6.4		
Medium	18.7	79.8		
Late	66.5	13.8		
Ideal number of children				
0–1 (ref.)	12.6	13.8		
2	68.1	69.5		
3+	19.3	16.7		
Ideal number of children				
Less (ref.)			4.6	5.9
Same			53.6	48.9
More			36.8	38.1
Much more			4.9	7.1
Satisfaction with partners				
(Un)satisfied (ref)			38.1	33.9
Very satisfied			61.9	66.1
Partnership ideal				
Traditional (ref.)	14.6	13.7	16.6	13.9
Mixed	57.1	60.0	56.9	59.0
Individualistic	28.4	26.3	26.5	27.1
Gender role				
Egalitarian (ref.)	54.9	48.1	58.7	58.9
Doubtful	16.6	12.9	6.4	15.8
Traditional	28.5	39.0	34.9	25.3
Female role (work vs. family)				
Family oriented (ref)	65.3	47.5	63.1	46.4
Doubtful	9.0	21.1	11.8	8.6
Carrier oriented	25.7	31.4	25.2	45.1
Future orientation				
Pessimistic (ref)	10.3	12.5	12.4	14.6
Modal	63.8	66.8	63.5	67.0
Optimistic	25.9	20.7	24.1	18.4
Age group				
Young (ref.)	32.2	44.4		
Medium age	45.1	35.0		
„Old”	22.6	20.6		
Birth parity				
first child (ref.)			42.9	46.0
second child			57.1	54.0
Partnership status				
Alone (ref.)	47.0	61.8		
Partner apart	26.2	19.1		
Cohabitation, short	10.7	7.8		
Cohabitation, long	3.9	3.2		
Marriage, short	6.3	4.3		
Marriage, long	5.9	3.8		
Income class				
Lower (ref.)	21.4	21.8	34.3	30.7
Medium	38.9	39.4	42.8	41.9
Upper	39.8	38.9	22.8	27.3
Level of education				
Low (ref.)	23.3	47.1	15.7	15.1
Medium	40.6	33.9	65.4	70.4
High	36.1	19.0	18.9	14.6
Living with parents				
No (ref.)	29.1	23.5		
Yes	70.9	76.5		

Table 2
Mean Values of the Used Continuous Variables

Independent variables, categories	First child		Second- and third child	
	female	male	female	male
Number of siblings				
Mean (min, max)	1.37 (0, 11)	1.38 0, 12)	1.58 (0, 16)	1.67 (0, 13)
Std. Dev.	1.2	1.2	1.4	1.6
Anomie-index				
Mean (min, max)	6.68 (0, 18)	7.16 (0, 18)	7.19 (0, 18)	7.36 (0, 18)
Std. Dev.	3.1	3.2	3.2	3.3
Religiosity				
Mean (min, max)	2.49 (1, 4)	2.74 (1, 4)	2.37 (1, 4)	2.58 (1, 4)
Std. Dev.	1.0	1.1	1.0	1.0
Time since last birth				
Mean (min, max)			7.1 (1,14)	6.5 (1, 14)
Std. Dev.			4.3	4,1

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