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## Who Remains Childless? Unrealised Fertility Plans in Hungary\*

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**Abstract:** This article focuses on *remaining* childless as a result of certain choices and constraints (not on *becoming* childless as a result of outliving children). There are two main aims of this study. First it seeks to reveal whether any specific features appear when (temporarily) childless people are compared with those with children in the same cohorts. It also aims to explore what kinds of factors can lead to childlessness (or more precisely, the prolongation of a childless period in life) among those men and women who, according to their self-assessment, were not prevented from having children by their own or their partner's health constraints. The analysis draws on GGS data from the first three waves of the Hungarian panel survey 'Turning Points of the Life Course' conducted in 2001, 2004, and 2008. The focus is on men and women who were childless in 2001 and were still childless in 2008. According to the findings, events directly connected to childbearing, such as having a stable partner or not having a partner, living in cohabitation or in marriage, have more influence on decisions about becoming parents than normative expectations, while economic factors (such as having a job) have some impact mainly on postponing childbearing, but do not seem to influence directly whether people will remain childless.

**Keywords:** postponers, childfree articulators, childless due to reproductive health problems Hungary, Generations and Gender Survey

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## Introduction

Childlessness is not a new social phenomenon, but for a long time it has been interpreted in close connection with biologically determined infertility and as mainly of medical interest. Social scientists started to devote increasing attention to this issue in the late 20th century and in the English-speaking world in particular have been doing so since the 1970s [Veivers 1973; De Jong and Sell 1977; Houseknecht 1979; Bloom and Pebley 1982; Bloom and Trussell 1984], when the proportion of voluntarily childless people started to increase in Western societies and being 'childfree' [Gillespie 2003] became a non-stigmatised lifestyle option. However, in Central-Eastern Europe there have been only a limited number of empirical studies focusing specifically on childlessness (see, e.g., Hašková [2010, 2011] and Mynarska et al. [2013] for Czech and Polish findings), while it can be expected that, at least partly, different reasons contribute to the development and increase of childlessness in Central-Eastern Europe from those in the West.

Historically childlessness has been associated with two main determinants, sterility and celibacy, but these traditional causes cannot explain the increasing proportion of childlessness among the younger generations of Europeans. Moreover, the developments in biotechnology and medical procedures have made it possible to an unprecedented extent for individuals who would previously suffer from childlessness, such as individuals with medical problems, single women, or same-sex couples, to experience parenthood with the help of artificial insemination, in-vitro fertilisation and surrogate motherhood [see, e.g., Bartels 2004; Hudson et al. 2009]. Thus, besides the traditional causes of infertility and childlessness, we have to consider previously unknown or unthinkable (post)modern features such as the transformation(s) of intimacy towards plastic sexuality and a pure relationship [Giddens 1992], or an increasing demand for private and public gender equality. In this context, parenthood, and especially motherhood, can be seen as an overly demanding commitment, which does not necessarily seem to be a very attractive lifestyle option for young Europeans.

Our focus is *remaining childless* as a result of certain choices and constraints, and not *becoming childless* as a result of outliving children. Childless people form a very heterogeneous group, who can experience childlessness in different—in some cases concurrent—temporal, motivational, and normative dimensions. Thus we can distinguish between temporary and definitive childlessness, between voluntary and involuntary childlessness, and, at least in certain countries, including Hungary,<sup>1</sup> (hetero)normatively prescribed forms of childlessness. We should also consider those socially normative aspects regarding what counts in

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<sup>1</sup> In Hungary there is no legal option allowing joint adoption by same-sex couples, and there is institutional discrimination regarding the impossibility of assisted reproduction for women living in a lesbian partnership (see Article 167 of the Hungarian Health Care Act—No. CLIV of 1997).

a society as 'too early' or 'too late' fertility with implications about the socially acceptable—and since at least the last decades of the 20th century gradually increasing—length of the initial childless phase in people's lives (not to mention the sexual political and other oppressive and/or liberating implications). Additionally, these categories have a fluid nature since individuals may move among them. This can make the examination of, for instance, voluntary childlessness difficult, especially in the case of biologically still fertile respondents since their preferences are not necessarily of a constant nature: they can still change their minds. At the same time, for respondents beyond the limit of their fertility it is no longer a matter of a decision to remain voluntarily childless. It can also happen that 'postponers'—who originally consider themselves only temporarily childless but after 'running out of time' can no longer have children [Veevers 1973; Kneale and Joshi 2008]—retrospectively re-interpret their previous preferences and present themselves as always having been voluntarily 'childfree' [Gillespie 2003; Heaton et al. 1999], which is a well-known strategy for dealing with cognitive dissonance [Festinger 1957]. Additionally, the limit of fertility, particularly in the case of men, is not a discreet and precisely determined given. It should also be pointed out that fertility is often interpreted as a purely or mainly biological phenomenon, while it is a concept that is infused with culture-specific, socially normative constraints. For example, socially supportive responses to biologically determined cases of unintentional childlessness (such as providing easy access to artificial insemination, in-vitro fertilisation, etc., and adoption) can greatly differ from socially prescribed cases of unintentional childlessness, characterised by constraining regulations regarding the fertility of people suffering in certain forms of mental and/or other illness, and limiting the child-rearing possibilities of same-gender couples.

The focus of our article is Hungary, where the very low fertility rate—which has been below 1.5 births per woman since the mid-1990s—projects a demographically unsustainable population. Such a low level of fertility seems to be a reflection of constrained individual agency and weak capabilities for having and caring for children, linked to economic uncertainties and incoherence of public versus private sphere gender equity [Hobson et al. 2014]. There are two main aims of this study. First, we want to reveal whether there are any specific features when comparing (temporarily) childless people with those having children in the same cohorts by using data from the first three waves of the Hungarian Generations and Gender Survey (GGS), a large-scale panel survey. We also want to explore what kinds of factors can lead to childlessness (or more precisely, the prolongation of a childless life period) among those men and women who, according to their own self-assessment, were not prevented from having children by their own or their partner's health constraints.

Our article is structured as follows. The background section provides an overview of the main childlessness-related demographic trends in Europe, including the post-socialist countries and Hungary, which is followed by an intro-

duction to the factors that have been shown to lead to childlessness by previous European and Hungarian research studies. The methods section introduces our database and the examined variables and the analytical strategies and methods we have applied. The results section presents the estimation results of multinomial and logistic regression models, while the conclusion discusses the main findings and their policy implications, as well as the limitations of the present study and our recommendations for further research.

## **Background**

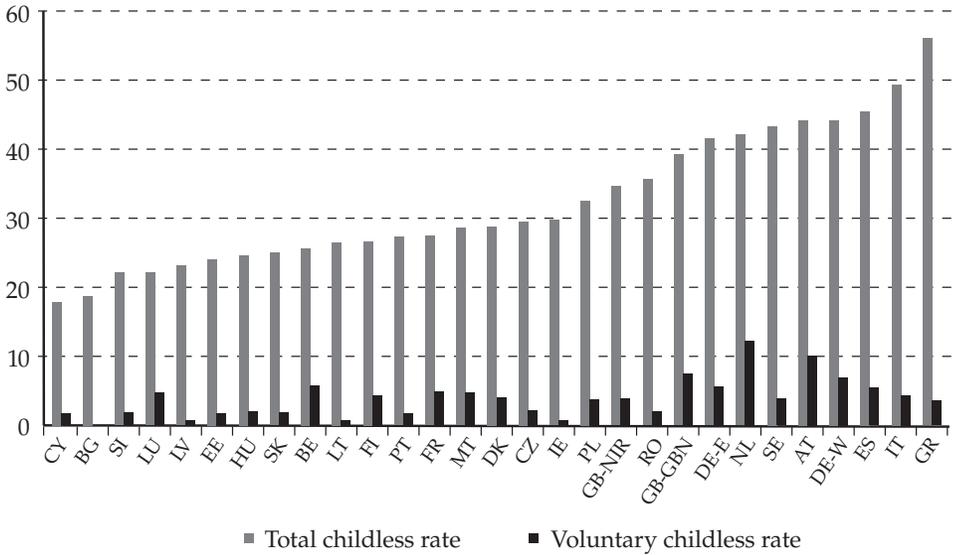
In this section we provide a brief overview of the most important childlessness-related demographic trends in Europe, with a special focus on post-socialist countries, including Hungary. Then, on the basis of key existing research, we will present the factors that can lead to childlessness in Europe and especially in Hungary.

### *European overview*

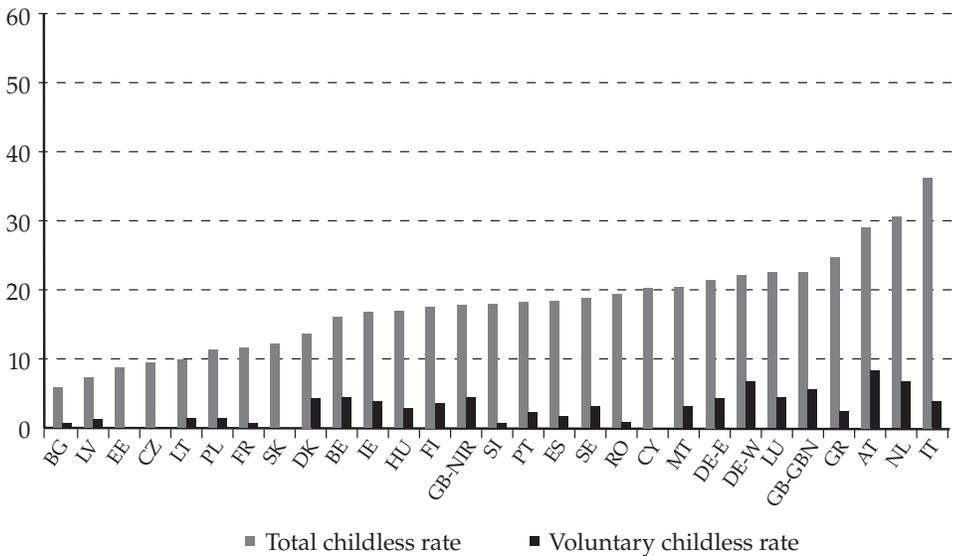
Present-day aging Europe, characterised not only by a decline in the proportion of young people, but also by low fertility, postponed childbearing, and an increase in childlessness among younger generations, can be divided into three demographically distinct areas [European Commission 2011]. One consists of Northern and Western European countries, where fertility levels have long been quite high and stable, remaining relatively close to replacement level—with total fertility rates (TFRs) of at least 1.8 children, and at least 2 in the case of Iceland, Ireland and France [OECD 2014]—which at the moment appear to be relatively stable, being also related to positive migration inflows. Southern Europe and the German speaking countries comprise a second group with much lower birth rates (1.4 TFR or less), where the postponement of motherhood has started later than in North-Western Europe and have not, as yet, experienced a complete recuperation; even with immigration, these countries will face population decline and increasingly severe population ageing. A third group—the one that Hungary belongs to—consists of the former state-socialist Central and Eastern European countries, which are experiencing dramatic demographic changes, characterised by a very rapid fertility decline in the 1990s, relatively high mortality, and high net emigration.

The postponement of parenthood, one of the most common features of fertility change in Europe, can clearly influence the total number of children, and if this trend continues, it will further contribute to the increasing rates of childlessness. According to Kohler, Billari and Ortega [2002], reproductive behaviour in Europe can be characterised by a distinctive postponement transition towards a late-childbearing regime. The main causes of parenthood postponement include lower child mortality, the higher educational attainment of successive

**Fig. 1. Rates of total childlessness and voluntary childlessness among men aged 30–45 by country**



**Fig. 2. Rates of total childlessness and voluntary childlessness among women aged 30–45 by country**



generations of women and their growing aspirations to be economically active and financially independent, the difficulties of combining parenthood and paid employment, and the wish of parents to secure financial security before having children [Kohler et al. 2002; Nicoletti and Tanturri 2008; Mills et al. 2011].

Europe's fertility decline has been associated with the growing gap between desired and achieved fertility reflected by a decrease in the number of large(r) families, but also with a marked rise in childlessness [Billari and Kohler 2004; Rowland 2007; Balbo et al. 2013]. Regarding the former state-socialist Central and Eastern European countries childlessness in the early 21st century seems to be a less widespread phenomenon than in Northern and Western Europe. Recent estimates of definitive childlessness for the female cohorts born in 1965 reveal that at less than 10% the lowest levels are in the Czech Republic, Hungary, Portugal, and Slovenia, while at above 18% on average the highest levels are in Austria, England and Wales, Finland, Germany, Ireland, Italy, and the Netherlands [OECD 2014].

Recent Eurobarometer<sup>2</sup> data confirm that most childless Europeans are not voluntarily childless (see Figure 1 and 2). Only a small proportion of childless men and women choose not to have children because they prefer a childfree lifestyle. The Eurobarometer data also indicate that the childlessness rate is higher among men than women in all countries, and Hungary ranks among those—mainly Central and Eastern European—countries where the childlessness rate is (still) relatively low [Miettinen and Szalma 2014].

The *Population Policy Acceptance Study* (PPAS), conducted between 2002 and 2005 in 14 European countries in the form of national standardised surveys with altogether more than 34 000 respondents aged 18–75, also found a lower than 5% level of 'desired childlessness' among male and female respondents in Cyprus, Slovenia, and Lithuania, and only among women in Poland, Hungary, and Estonia, while in the examined Western European countries much higher rates were reported: in Germany 15.4% of women and 22.5% of men said that they did not want children; in the Netherlands 12.5% of women and 17.5% of men said the same, and in Belgium (Flanders) it was 10.4% and 15.3%, respectively [European Commission 2007: 47–48]. The PPAS findings also highlighted that concerns about the future and the costs associated with having children can be identified as factors preventing the achievement of desired fertility especially in Central and Eastern European countries, including Hungary.

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<sup>2</sup> The Eurobarometer 75.4 survey was carried out in 2011 in the 27 EU countries [European Commission 2014a]. The stratified sampling procedure assures nearly equal probability samples of about 1000 respondents in each of the countries. The sample size allows equally precise estimates for small and large countries. The survey used a single uniform questionnaire design, with particular attention paid to equivalent question wording across languages. Childlessness could be measured by the following question: 'For you personally, what would be the ideal number of children you would like to have?' If the answer was zero, the respondent was regarded as voluntarily childless.

Similar findings were presented by Merz and Liefbroer [2012] on the basis of analysing third round European Social Survey data: they found more favourable attitudes towards voluntary childlessness in Western European countries front-running in the Second Demographic Transition—associated with increased individualisation and a focus on personal needs for self-realisation—than in the former state-socialist countries, where the process of individualisation had only just started. Approval of voluntary childlessness was lowest in Poland, Slovakia, Hungary, Lithuania, Romania, Estonia, and Bulgaria (with a disapproval rate over 50%): these countries were presented as still struggling with the aftermaths of the collapsing communist regimes, leading to economic uncertainty and a reduction in fertility.

#### *Factors that can lead to childlessness*

The most recent Hungarian census data indicated an increase in the childlessness rate of women over 41 from 7.8% to 11.2% between 2001 and 2011 [Kapi-tány 2015], while there is no evidence of any short-term increase in biological or disease-related infertility that seems to affect a reported average of 150 000 Hungarian heterosexual couples who are unable to achieve pregnancy within a year of regular sexual activity [Simó 2006]. At the same time, as we have already indicated, previous research highlighted that voluntary childlessness is not a desired lifestyle component for most Hungarian men and women. If for most people in Hungary childlessness does not seem to derive from their medical-biological fate or a personal choice, it seems to be relevant to ask which factors might ultimately lead to childlessness.

Since our analysis is based on Hungarian panel data from the Hungarian Generations and Gender Survey (GGS) that enables us to follow the same respondents' paths in a given period of time, we can apply life-course theory as a broader theoretical framework. We will use earlier life course experiences as a means of accounting for subsequent life outcomes and try to explore the degree to which later life outcomes can be interpreted from events or conditions experienced by the individual at a younger age [Dannefer 2003]. Becoming a parent or a nonparent can be examined as socially embedded life events at a micro level [Huinink 1995], focusing on temporal locations, intersection(s) of historical and biographical time, the intertwining of different life domains of one or more persons, etc. However, the major theoretical assertion about the modern life course as moving along 'an age-differentiated, socially delineated, and socially structured sequence of transitions' [Hagestad and Call 2007: 1342], and/or being characterised by a 'relatively orderly and age-graded role structure' [Dannefer 2003: 649] can be contrasted by 'disorderly' postmodern developments of previously unobserved proportion. For instance, we can witness in recent decades how the events of cohabitation, childbearing and marriage have become 'disordered', but at the same time the institutionalised life course remains quite robust,

especially among certain population segments in the (former) welfare states of Western Europe [Dannefer 2003: 652–653].

The regularity of standardised work and family trajectories can be traced back to the 1960s in Western societies, when most people went through the same ‘three boxes of life’—school, work, and retirement [Riley et al. 1994]—in the same order, only very few of them getting out of sequence or skipping transitions [Kohli 1986]. The predominant standardised life course was gradually supplemented with alternative—often gendered—options from the late 1960s owing to the pluralisation of both occupational and family trajectories [Widmer and Ritschard 2009]: some young people preferred continuing their education in order to avoid unemployment periods, tended to postpone their first long-term partnership formation, chose cohabitation instead of marriage, and opted for postponing parenthood or becoming a non-parent. However, in the state-socialist countries the uniform standardised life course became institutionalised without any supplementary alternatives, and this uniformity prevailed until the political system change of the early 1990s, when a very rapid de-standardisation started, mainly owing to the large-scale economic restructuring that often coerced people into ‘disorderly’ forms of employment and family practices.

Billingsley [2010] presented three different approaches to explain fertility decline in the post-communist countries, including the economic crisis argument (about securing material needs having higher priority than having children), the postponement transition argument (about waiting to have children being a rational reaction to economic uncertainty), and the second demographic transition argument (about increased opportunities for self-realisation being prioritised over having children), and the latter two approaches were shown to be relevant in the Hungarian context. When comparing five European countries regarding the realisation of childbearing intentions much lower chances were found by Spéder and Kapitány [2014] in Hungary, Bulgaria, and Georgia than in France and Germany: the authors pointed to unrealised fertility intentions as a key aspect of post-communist fertility transition, which they explained by anomic social conditions originating from the discrepancy between the differently paced changes in values and social structures.

In a Hungarian qualitative study conducted with 100 working parents in 2008, fertility-related capabilities of the interviewees were shown to be constrained in many ways, including the combination of uncertainty concerning the future and certainty of high child-raising costs, as well as incoherence between public gender-equity principles and private family practices [Takács 2013]. In this context capabilities were interpreted as the freedom to achieve valued functionings [Sen 1987], that is, people’s notions of the *real opportunities* they have regarding the (family) life they may lead and having as many children as they wish to have.

In the present study, especially when we examine the life events (or non-events) of respondents in the first three waves of the Hungarian GGS, we attempt to combine the explanatory forces of the life course framework with the earlier mentioned postponement transition, second demographic transition as well as

the constrained capabilities approaches. At the beginning of our examination we have several expectations regarding education, employment, age, religiosity, attitudes towards traditional family values, financial resources, and partnership status related pathways to childlessness of our respondents.

### *Social status: the effect of education, employment and financial resources*

Previous findings have shown that education had different effects on men and women: higher education of men is usually related to lower levels of childlessness, while the opposite is true for women [González and Jurado-Guerrero 2006; Fieder et al. 2011]. Based on these findings we expect that highly educated women will more likely postpone having children (that is they will have a greater chance of remaining—at least temporarily—childless) than their lower-educated peers, since they have spent more time in education and enter the labour market later, while a stable labour market position seems to be an important precondition for becoming a parent. We also expect that regarding becoming a parent, a higher level of education is less of a negatively determining factor for men than it is for women—although men with higher qualifications can also delay becoming parents if they start their careers in the labour market later, but in their case there is no strict biologically determined age limit to becoming a parent, so they can have a greater chance to become fathers at a later stage in life as well.

We should note however that in present day Hungarian society, characterised by the incoherence of gender-equal educational and employment opportunities and the unequal division of family tasks, combining parenthood and paid employment related tasks are more difficult for women than for men [Takács 2013]: thus employment can have a negative relationship with entering parenthood for women, and a positive one for men. In addition, we suppose that having their own apartment—symbolising sufficient financial resources as well as providing a certain level of uncertainty reduction within the Hungarian population traditionally characterised by limited geographical mobility within their country<sup>3</sup>—has a positive effect on entering parenthood for both men and women.

### *Age effect*

With the postponement of age at first birth, most adults in contemporary Europe are nowadays childless for at least one decade. Lifetime childlessness or permanent childlessness means that an individual has not had children by the end of

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<sup>3</sup> In recent years (especially after 2010) the traditional geographical immobility of Hungarian society has started to change due to an increasing proportion of especially the younger population leaving the country to work abroad, mainly within the EU [European Commission 2014b].

their reproductive life, which for women is around 45 years and for men has no clear upper limit. Today, however, very few European men or women become parents after turning 40 [Billari et al. 2007].

There are not just biological differences that exist between men and women regarding the timing of childbearing; there are also culturally constructed and institutionalised differences. In this regard society views men and women differently when it comes to age. According to Fasouliotis and Schenker [1999], this can be explained by their different commitment to parenthood as in most societies it is still women who do the lion's share of childrearing. Moreover, this gendered bias is also institutionalised: in most countries, including Hungary, there are strict age limits for participating in assisted reproduction for women, but not for men [ESHRE 2008].

### *Religiosity and traditional attitudes*

Previous empirical studies have found some evidence for the role of value changes in the increasing rate of childlessness: 'family values' seem to be more important for people having children than for the intentionally childless – but this difference disappears when the value preferences of people having children and those of the temporarily childless are compared [Keizer 2010]. In the context of value shifts towards increasing individualisation and secularisation, associated with the second demographic transition [Lesthaeghe 1983; van de Kaa 1987], when traditional family lifestyles are no longer as attractive and/or compelling as they used to be, we expect that religious people will have a smaller chance of remaining childless than their non-religious counterparts. We also expect that those who express traditional family attitudes will have a greater chance to have children than their peers who are characterised to a lesser extent by traditional attitudes towards family life.

### *Partnerships*

Various studies indicate a much higher proportion of childlessness among women without co-residential relationships than among women who live in cohabitation or marriage [Schoen et al. 1999; Berrington 2004; Szalma and Takács 2012; Testa 2012]. Since among life events the establishment of a stable partner relationship is the most closely intertwined with having children, we also assume that the lack of a lasting partner relationship will mean for both men and women that those who are temporarily childless will not be able to realise their desires to have children in the end.

## Methods

In the course of our empirical analysis we used the first three waves of the panel study 'Turning Points of the Life Course' ('Életünk fordulópontjai'), conducted by the Demographics Research Institute of the Central Statistical Office of Hungary as part of the Generations and Gender Survey (GGS) in 2001, 2004, and 2008; and we applied descriptive statistics, multinomial logistic regression, and logistic regression models as methodological tools. The first GGS data collection wave of 2001 reached 16 364 persons, representative of the Hungarian population aged between 18 and 75 years. The sample of the second wave comprised 13 540 people and the sample of the third wave comprised a total of 10 641 people, with the reduction due to respondents dying, refusing answers, and other causes of attrition.<sup>4</sup>

We used the panel survey questions directed at the number of own children, highest level of education (primary school, vocational school, secondary school or university), employment status, relationship status (being single, married or cohabiting), demographic background variables (gender, age, settlement type),<sup>5</sup> religiosity, and attitudes in connection with family life.

Taking into account that the income level of respondents is difficult to measure, we opted for examining whether respondents (or their partners) own an apartment. This was necessary not only because many respondents would not state their real income (the proportion of those refusing to answer usually being very high), but also because in those cases where respondents live in one household with their parents or other relatives, it is difficult to separate them, or the actual personal income is less relevant. Including the question whether respondents own an apartment was also supported by the fact that almost 90% of all apartments in Hungary are privately owned, and for most young Hungarians getting their own apartment is a precondition for having children [Szalma 2010].<sup>6</sup>

We also created and applied a Traditional Family Attitudes (TFA) index by using principal component analysis with the following variables: (1) 'It is right and proper if, for the husband work is the more important, while for the wife the home and the children, even when both are working'; (2) 'A child should submit in everything to their parents and respect them, even if they do not deserve that'; (3) 'With a good profession and a good workplace if women are right if work

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<sup>4</sup> In the third wave, attrition due to ageing was corrected with a sub-sample consisting of young(er) people. Since the present research only examined those who were older than 30 in 2001 and took part in all three waves, we did not use this sub-sample in our study.

<sup>5</sup> Age was measured as a categorical variable with the following categories (in 2001): aged 30–34, 35–40, and 41–45 for women, and aged 33–39, 40–44, and 45–50 for men.

<sup>6</sup> According to the Eurostat Income and Living Conditions Database, 89.7% of all apartments in Hungary are privately owned (see: <http://www.piackutatasok.hu/2012/09/ksh-lakasallomany-tulajdoni-szerkeze.html>).

is more important to them than having more children'; (4) 'There are of course parental responsibilities, but one should not give up life goals because of children'. Replies to all four statements were measured on a three-point scale (agree, disagree, unsure). In the case of the first two statements, agreement expresses the acceptance of traditional family-related attitudes, while for the other two statements disagreement signals the same. We coded the responses to the statements accordingly. High values of the TFA index indicate an acceptance of traditional forms of family life and low values their rejection.

Additionally, we included the following variable into our first (multinomial) model: 'For a happy marriage, it is important to have a child together', which was measured on a five-point scale (where 1 meant 'not at all important' and 5 meant 'very important'). In the second (logistic regression) model, we controlled for the desire to have a child.

Regarding our analytical strategy, as a start we wanted to find out more about those who were childless temporarily (postponers) or voluntarily (childfree articulators) compared to parents in 2001. We applied slightly different age categories for women and men partly because of the gendered differences regarding the mean ages at first childbearing [KSH 2014], and partly because the question about future childbearing intentions ('Do you intend to have a /another child?') was put only to female respondents aged 45 or younger, and to male respondents aged 50 or younger. Thus we focused only on women aged 30–45 and men aged 33–50 who did not have children. Then we divided the childless respondents into three groups: the postponers, the childfree articulators, and the childless due to reproductive health problems.<sup>7</sup> We considered those respondents 'postponers' who had no children of their own in 2001 and answered 'yes' to the question 'Do you intend to have a /another child?', and at the same time had indicated that there were no health problems standing in the way of having children. We placed those childless respondents into the 'childfree articulator' category who had answered 'no' to the question 'Do you intend to have a /another child?' and indicated no health problems at the same time. The 'childless due to reproductive health problems' group included those childless respondents who indicated that their decision regarding not having children depended on their own or their partner's health. Table 1 provides an overview of the number of respondents according to these three different childlessness categories.

Owing to the unchangeable nature and very low number of cases, we do not provide detailed results about the analysis of the 'childless due to reproductive health problems' group. It should be noted, however, that the results for men and women are quite similar: for instance, we found that both men and women belonging to this category are less likely to live in partnership (it is a possibility that their health-related problems might have prevented them from establish-

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<sup>7</sup> We could not include '(hetero)normatively prescribed childlessness' (of same-sex partners) as an additional category because of the lack of empirical data.

**Table 1. Categories of childlessness among women aged 30–45 and men aged 33–50 in 2001**

	Childless men respondents aged 33–50 (N=521)			Childless women respondents aged 30–45 (N=280)		
	Postponers	Childless due to reproduc- tive health problems	Childfree articulators	Postponers	Childless due to reproduc- tive health problems	Childfree articulators
Health problem	No	Yes	No	No	Yes	No
Intention to have a child	Yes	Not ap- plicable	No	Yes	Not ap- plicable	No
Number of cases	381	28	112	198	20	62

*Source:* Generations and Gender Survey for Hungary, first wave (2001), authors' calculations.

ing a partnership), and more likely to live in Budapest (where the less directly controlled, highly urbanised social space can provide a less stigmatising environment and better access to healthcare facilities as opposed to smaller rural settings).

As a first step of analysis we examined descriptive statistics, then applied multinomial logistic regression on the Hungarian GGS data of 2001 to determine whether respondents belonging to the postponer or the childfree articulator categories have any particular characteristics when compared to parents of similar ages. We chose this method because it allows us to predict the probabilities of the different possible outcomes of a categorically distributed dependent variable (types of childlessness) given a set of independent variables (such as age, religiosity, educational level, having paid work, family status, settlement type, having own apartment, traditional family related attitudes and the view on the importance of having a child together for a happy marriage). Since we used only the first wave of the panel data in this phase, for internal consistency we applied the cross-sectional weight of the Hungarian survey rounds.

Next, we focused on only those respondents who could be categorised as postponers in 2001: we examined whether they became parents by 2008, and which factors influenced their (non-)transition to parenthood. First, we created a dichotomous dependent variable by assigning the value of 0 to those who remained childless between 2001 and 2008, and assigning 1 to those who entered parenthood in the examined time period. This time we chose logistic regression that could enable us to predict the probabilities of the binary values of the de-

pendent variables. We employed almost the same set of independent variables as in the multinomial models. All our independent variables derive from the first wave since we tried to avoid that an effect should occur before its cause.<sup>8</sup> The application of logistic regression makes it possible to determine to what extent belonging to a given category raises or reduces the chance of an event occurring.

Every model was run separately for men and women because of our assumption about different underlying gender-specific causes of childlessness for women and men. The separate gender-specific regression modelling allowed us to use different age intervals for male and female respondents: 30–45 in the case of women and 33–50 in the case of men. In the logistic regression models we applied longitudinal weights because we used the longitudinal features of the data.

## **Results**

### *Postponing parenthood*

Since the last decades of the 20th century most Hungarians have tended to postpone their childbearing to later ages: for example, women became mothers in their early twenties in 1970, but the age of first motherhood had shifted to the mid-twenties by 1995, while in 2009 most women experienced first motherhood only in their early thirties [OECD 2014]. Timing of childbearing at a later age can lead to an increase in the childlessness rate because those who plan to have a child at later ages might have given up these plans or run out of time (i.e. that time period when childbearing might still be possible biologically) [Szalma and Takács 2014]. The biological time-span for having children and the social norms for childbearing intervals do not always fully coincide with each other. According to 2006 European Social Survey findings, the latest acceptable age for becoming a mother is 39 in Hungary, while men should not have children after the age of 45.7 [Paksi and Szalma 2009]. At the same time, younger people tend to be somewhat more permissive regarding their norms for the latest acceptable age to have a child than older people: Hungarian Eurobarometer data indicated 41 years as the latest socially acceptable age for entering motherhood by the younger cohort (aged 25–39) and 40.3 years by the older cohort (aged 40–65), while it was 46.9 for fatherhood according to the younger cohort, and 45.9 years according to the older cohort [Testa 2006]. The changing perception of childbearing age norms does not only reflect greater tolerance towards various individual life strategies, but as previous Hungarian studies indicate, it can also affect the actual childbearing age [Spéder and Kapitány 2007].

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<sup>8</sup> We are grateful to our reviewer who called our attention to a possible case of reverse causality if we were to use an independent variable from the second wave.

Our empirical analysis based on Kaplan-Meier survival estimates also shed light on the upper age limits of childbearing in our 2001 sample (see Diagrams I and II in the Appendix). We found that the rate of becoming a mother for the first time after the age of 35 is very low (under 2%) and after the age of 43 no respondents became a mother in 2001. A similar tendency could be observed among men, but entry into parenthood tended to happen a few years later in men's life trajectories than in women's; and there was no sharp ending point of becoming fathers—although the chance of entering fatherhood after the age of 45 became very low. We could also witness that in spite of the postponement tendencies in childbearing, the upper age limits for entering parenthood seem to remain constant both among men and women, leaving a shorter time period for postponers to have children—which can support the assumption that one of the factors that can contribute to the increase of definitive childlessness is the postponement of life events in one's life course trajectories [Billari et al. 2007; Hagestad and Call 2007].

In the 2001 sample 87.8% of women aged 30–45 and 84.5% of men aged 35–50 already entered parenthood. The proportion of childfree articulator men (5%) was about twice as high as the proportion of childfree articulator women (2.7%), while 8.7% of women and 9.3% of men could be categorised as postponers, and 1% of respondents reported that they cannot have children because of their own or their partner's health-related problems.<sup>9</sup> Owing to the nature of our quantitative survey data, it is impossible to determine whether the respondents were voluntarily childless from the beginning of their fertility career or they stated that they did not want any children because they had given up on becoming parents at a certain point in their life. In the latter case the re-interpretation of unfulfilled plans as a conscious choice might help to decrease cognitive dissonance. However, this can work the other way around as well: some of those respondents who were categorised as postponers perhaps did not want to become parents at all, but due to internalised pressure about the 'parenting directive', that is, the widely accepted social norm in Hungary that everyone should become a parent, they did not want or dare to admit their intention to remain childless. Table 2 provides an overview of the rates of becoming a (non-)parent by 2008 according to the different childlessness categories of 2001.

By examining our 2008 sample we can see that only 22% of the female respondents, defined as postponers in 2001, were able to realise their childbearing intentions in the examined time period. Since even the youngest women from this group became 37 by 2008, it can be assumed that the rate of entering parenthood would not improve considerably in the future as the probability of becoming a first-time-mother after the age of 37 is quite low. Among postponer men only

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<sup>9</sup> The figure of 1% seems to be an underestimation of infertility. The underestimation can derive from the reluctance of respondents to report this type of intimate information. It can also derive from the lack of awareness of their own fertility problems: for instance, some postponers might not be aware of their reproductive health problems before they try to have a child.

**Table 2. Becoming a (non-)parent by 2008 according to the different childlessness categories of 2001**

	Becoming a (non-)parent by 2008	Childless respondents in 2001		
		Postponers	Childless due to reproductive health problems	Childfree articulators
Women (childless & aged 30–45 in 2001)	Still childless in 2008	N=155 (78%)	N=17 (85%)	N=55 (89%)
	Became a mother by 2008	N=43 (22%)	N=3 (15%)	N=7 (11%)
N=280		198	20	62
Men (childless & aged 33–50 in 2001)	Still childless in 2008	N=342 (90%)	N=27 (96%)	N=110 (98%)
	Became a father by 2008	N=39 (10%)	N=1 (4%)	N=2 (2%)
N=521		381	28	112

Source: Generations and Gender Survey for Hungary, first and third waves (2001 and 2008), authors' calculations.

14% became fathers by 2008. However, as men's average age at the birth of their first child tends to be higher than women's, and men do not have to face such a constraining 'biological (neither social, nor institutionalised) deadline' regarding their fertility, so in theory they can have a greater chance of entering parenthood later in their life course than women. The fact that seven women and two men who previously (in 2001) belonged to the childfree articulator category became parents by 2008 can well illustrate the fluid nature of childlessness categories: in these cases (because of the quantitative nature of our data) we can only assume that changing preferences and circumstances or contraceptive failure<sup>10</sup> led to their parenthood.<sup>11</sup>

<sup>10</sup> Including the case where socio-economically disadvantaged families cannot afford reliable contraceptive methods such as contraceptive pills or condoms.

<sup>11</sup> There were three women and one man who became parents in 2008 even though they were categorised in 2001 as belonging to the childless due to reproductive health problem group. This might be explained, for instance, by medical interventions or re-partnering (between 2001 and 2008): if the choice of not having children (in 2001) was made because of the previous partner's health problem. However, owing to the limited explanatory potential of our survey data, we cannot be sure about the exact reasons.

*The impact of different factors on childlessness in 2001*

In order to explore the specific features when comparing postponers to those having children in the same cohorts, we applied multinomial logistic regression analysis, using respondents who were parents in the first GGS round as a reference group. In Table 3 we summarise the impacts of basic socio-demographic variables such as belonging to a certain age group, highest level of education, settlement type, partnership status, religiosity, and having one's own apartment, the view about the importance of having a child together for achieving a happy marriage, and traditional family related attitudes on the female and male postponer and childfree articulator categories.

Outcomes of our analysis show that women belonging to the older age groups were significantly less likely to belong to the postponer category than younger women, a result which is consistent with previous research findings [Berrington 2004; Heaton et al. 1999; Schoen et al. 1999]. Regarding men, with the progress of age the chance of postponement—like in the case of women—decreases: older age groups of men were significantly less likely to be postponers (and more likely to be childfree articulators) than younger men in 2001.

Women with higher levels (secondary and especially tertiary) of education were much more likely to be postponers than their lower-educated counterparts. A somewhat similar but much less pronounced tendency could be detected among men, while men with vocational school background were the least likely to be postponers. Regarding childfree articulators, educational level did not show any significant effect, which is a slightly unexpected result as voluntary childlessness is often associated with higher levels of education leading to increased opportunities for self-realisation—for instance, in the context of employment. Having paid work indeed significantly increased the chance of postponement for women whose employability in the Hungarian labour market—characterised by very limited parent-friendly flexibility—can be seriously constrained by having children. At the same time (because of the highly gendered nature of family practices that can largely 'free' men from adjusting their work-life balance after having children) employment did not have the same effect on men in the context of having children.

Living in a partnership significantly decreased the chances of temporary as well as voluntary childlessness (being a postponer or a childfree articulator) for both genders especially in the case of marriage (but also in the case of cohabitation). Being partnered as a very strong predictor of entering parenthood is a result that reaffirms the findings of several previous studies [Heaton et al. 1999; Schoen et al. 1999; Berrington 2004; Szalma and Takács 2012, 2014].

Having their own apartment was shown to somewhat decrease the chance of belonging to the childfree articulator categories for both men and women, a result that coincides with previous Hungarian research findings: having one's own apartment is regarded as a necessary precondition of having children [Szalma 2010]. Since the quantitative survey data of the Hungarian GGS rounds do not allow us to find out exactly what might be in the background of negative childbear-

**Table 3. Impacts of different variables on postponers and childfree articulators in 2001 (B coefficients in multinomial regression analysis; reference group: parents) —first part**

Variables	Female respondents (30–45)		Male respondents (33–50)	
	Postponers	Childfree articulators	Postponers	Childfree articulators
Age group: 30–34/ 33–39	Ref.	Ref.	Ref.	Ref.
Age group: 35–39/ 40–44	-1.76***	0.01	-0.89***	-0.16
Age group: 40–45/ 45–50	-3.83***	0.53	-1.32***	0.59*
Religiosity: not believing in God	Ref.	Ref.	Ref.	Ref.
Religiosity: believe in God	0.12	0.07	0.01	-0.16
Highest level of education: primary school	Ref.	Ref.	Ref.	Ref.
Highest level of education: vocational school	-0.01	-0.22	-0.44*	-0.38
Highest level of education: secondary education	0.54*	-0.16	0.49^	-0.21
Highest level of education: university	1.24***	0.25	0.59^	-0.63
Not having paid work	Ref.	Ref.	Ref.	Ref.
Having paid work	1.05***	-0.07	0.1	-0.25
Family status: single	Ref.	Ref.	Ref.	Ref.
Family status: living in co- habitation	-0.47*	-0.92*	-1.7***	-1.64***
Family status: living in marriage	-2.36***	-2.41***	-3.3***	-2.82***
Settlement type: village	Ref.	Ref.	Ref.	Ref.
Settlement type: town	-0.32	-0.22	0.04	-0.09
Settlement type: capital	0.01	0.02	0.36	-0.01
Not having own apartment	Ref.	Ref.	Ref.	Ref.
Having own apartment	0.06	-0.51^	-0.2	-0.41
Traditional family-related attitudes	-0.08	0.05	0.09	-0.12

**Table 3. Impacts of different variables on postponers and childfree articulators in 2001 (B coefficients in multinomial regression analysis; reference group: parents) —second part**

Variables	Female respondents (30–45)		Male respondents (33–50)	
	Postponers	Childfree articulators	Postponers	Childfree articulators
For a happy marriage, it is not important to have a child together (values: 1–2)	–0.79*	1.38**	–0.49	–0.25***
For a happy marriage, it is not SO important to have a child together (value: 3)	Ref	Ref	Ref.	Ref.
For a happy marriage, it is important to have a child together (values: 4–5)	–0.68	–0.2	–0.7	–1.77*
<i>Number of observations</i>	2285		2139	
<i>LR chi2 (57)</i>	541.45		724.84	
<i>Pseudo R2</i>	0.24		0.28	
<i>Log likelihood</i>	–843.43		–948.47	

Source: Generations and Gender Survey for Hungary, first wave (2001), authors' calculations.

Note: ^ p<0.1; \*p<0.05; \*\*p<0.01; \*\*\*p<0.001.

ing intentions, we cannot exclude the possibility that our childfree articulator category at least to a certain extent overlaps with involuntary non-parenthood, associated with a historically well-known inequality pattern, consisting of people who cannot afford to have children or even establish a stable relationship because of financial reasons. An alternative hypothesis might be that people without an apartment have a more flexible mobile lifestyle and are less willing to have children.

Regarding settlement type, religiosity, and traditional family-related attitudes we did not find any significant effect, which might be due to the low number of cases. However, regarding the importance of having a child within marriage was shown to have a significant effect: when compared with parents, childfree articulator women agreed more, while female postponers—in a somewhat self-justifying manner—tended to agree less with the importance of having children for a happy marriage. At the same time, childfree articulator men tended to disagree with this view much more than those male respondents who already became fathers by 2001.

**Table 4. Impacts of different factors on becoming a parent between 2001 and 2008 (Logistic regression analysis)—first part**

Variables	Parents in 2008 who were childless in 2001	
	Women (30–45 in 2001)	Men (33–50 in 2001)
Age group: 30–34/ 33–39	Ref.	Ref.
Age group: 35–39/ 40–44	–0.17	–0.02
Age group: 40–45/ 45–50	–0.69	–1.4*
Religiosity: do not believe in God	Ref.	Ref.
Religiosity: believe in God	–0.28	1.6***
Highest level of education: primary school	–0.62	–1.44
Highest level of education: vocational school	Ref.	Ref.
Highest level of education: secondary education	0.14	0.77
Highest level of education: university	0.28	2.25***
Not having paid work	Ref.	Ref.
Having paid work	0.35	0.75
Family status: single	Ref.	Ref.
Family status: living in cohabitation	1.14*	1.54**
Family status: living in marriage	0.82*	1.84***

*Transition to parenthood between 2001 and 2008*

In order to explore the factors that led to childlessness (or more precisely: the prolongation of their childless life period) between 2001 and 2008 among those men and women who, according to their self-assessment, were not prevented from having children by their own or their partner’s health conditions, we constructed gender-specific logistic regression models. Table 4 provides a summary of the factors that could influence the chances of becoming a parent between 2001 and 2008.<sup>12</sup>

<sup>12</sup> We took into account in our models those fathers (N=41) and mothers (N=50) who previously belonged to the categories of the postponers or the childfree articulators in 2001 and had entered into parenthood by 2008. Originally we constructed two sets of gender-specific logistic regression models: the second set including only partnered childless men (N=112) and partnered childless women (N=54) belonging to the categories of the post-

**Table 4. Impacts of different factors on becoming a parent between 2001 and 2008 (Logistic regression analysis)—second part**

Settlement type: village	Ref.	Ref.
Settlement type: town	-0.15	-0.12
Settlement type: capital	-0.73	-1.38*
Not having own apartment	Ref.	Ref.
Having own apartment	0.29	-0.07
Traditional family-related attitudes	0.001	0.04
Would like to have a child	0.28	1.92**
<i>Number of observations</i>	260	493
<i>LR chi2</i>	19.31	95.35
<i>Pseudo R2</i>	0.075	0.35
<i>Log likelihood</i>	-119.11	-88.59

*Source:* Generations and Gender Survey for Hungary, first three waves (2001, 2004, 2008), authors' calculations. The values of the dependent variables were calculated from the first and third waves of the panel survey, while the independent variables derive from the second wave.

Note: Only those respondents were considered here who were categorised as temporarily or voluntarily childless in 2001. There were altogether 493 temporarily or voluntarily childless male respondents aged 33–50 in 2001: 41 of them entered fatherhood by 2008. There were altogether 260 temporarily or voluntarily childless female respondents aged 30–45 in 2008: 50 of them entered motherhood by 2008.

Note:  $p < 0.1$ ; \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

According to our results, which coincide with previous research findings [Schoen et al. 1999; Berrington 2004; Szalma and Takács 2012; Testa 2012], in the case of both women and men partnership status played a determining role: marriage as well as cohabitation significantly increased the probability of becoming a parent for both genders. However, in the case of female respondents this was the only significant effect within the model: thus our initial expectations about the negative relationships between entering into motherhood, on the one hand, and high(er) levels of education, employment, and the lack of a co-residential relationship, on the other, were only partially fulfilled.

poners or the childfree articulators in 2001 who had become parents by 2008. In the case of living in a partnership, we also controlled for disagreements about having a child, and the duration of the relationship (at least 5 years or less than 5 years of duration): duration of the partnership did not have any significant effect, while disagreements about having children had a negative effect only in the case of women (which finding can also reflect unequal power relations between the partners).

Apart from partnership status, transition to fatherhood was significantly affected by a number of other variables, including the positive effects associated with the desire to have children, higher educational background, and religiosity, as well as negative effects deriving from low level of education and belonging to an older (45–50) age group. Thus our initial expectations about the positive relationship between men entering into fatherhood, on the one hand, and having a higher level of education, being employed, and being religious, on the other, were fulfilled, while traditional family attitudes did not seem to have any effect in any of our models.

## **Conclusion**

The present study has examined socio-demographic characteristics of women aged 30–45 and men aged 33–50 who had not yet had children in 2001 on the basis of three waves of the Hungarian Generations and Gender Survey. We grouped these childless respondents into three analytically constructed categories: the largest group consisted of postponers, followed by a smaller group of childfree articulators and a very small group of childless due to reproductive health problems. We have concentrated on the first two groups of childless respondents in our analyses. We were unable to examine empirically the social phenomenon of prescribed childlessness—a relevant feature for instance for Hungarian same-sex couples with child-rearing intentions—because of the lack of data to be analysed.

This study has several limitations. One of the main limitations derives from the relatively small sample sizes regarding transition to parenthood between 2001 and 2008, which makes our conclusions tentative. Furthermore, our data did not allow us to examine many additional important issues that might strongly influence childlessness (including the quality of the partner relationship, the existence or lack of a network of helpful relatives or friends one can rely on when raising children, or the role of socialisation patterns brought forward from the family of descent in reaching decisions about having children). We did not have the possibility to explore how gays and lesbians interpret their—legally prescribed—childlessness in Hungary, either.

According to our results, postponement tends to characterise younger single women with higher education and paid work. Value orientations did not seem to have much influence on our female respondents' timing of parenthood since neither religion, nor traditional family-related attitudes had significant effects (except the importance of children for a happy marriage). For men we also found that age, partnerships status and education are relevant factors that influence the timing of becoming fathers.

Making use of the panel character of the research we were also able to examine to what extent those women and men who had considered themselves as

postponers or childfree articulators (in 2001) had become parents within the next seven years, and what factors played a role in their transition to parenthood. Only 22% of postponer women and 14% of postponer men had become a parent by 2008, which clearly shows that the majority of postponers were unable to realise their reproductive plans. Their intention to have children, however, seemed to be very stable: the majority of those who were not able to realise their fertility plans by 2008 still identified as belonging to the postponer group, while their chances of realising their reproductive plans continued to decrease due to their ageing, especially in the case of women.

The greatest obstacle standing in the way of having children is presumably the lack of a stable partner relationship: this is supported by our finding that the women with the greatest chance of becoming a mother in the examined period were those living in some kind of partner relationship (marriage or cohabitation). For men we also found that among other variables—such as the level of education, the desire to have children, age, and religiosity—partnership is one of the most important factors regarding entry into fatherhood.

One of the main outcomes of the present study is therefore that a vast portion of Hungarian postponers do not become parents even at a very late reproductive age. Moreover, in a society with a strong social expectation that adult biography includes parenthood, we could show that the main factors contributing to perpetual postponement are neither economic nor ideational factors, but a lasting life-course ‘non-event’ of not forming a stable partnership, characterising an increasing number of people.

Our results are consistent with those of Spéder and Kapitány [2014] regarding Hungary: they found that in a European comparison the chances of realising childbearing intentions are significantly lower in Central and Eastern European post-communist countries than in Western Europe. On the basis of our findings we cannot explain unrealised fertility intentions as resulting from changing values (which interpretation is supported by the fact that the number of those who voluntarily want to remain childless is very low in Hungarian society) or from the influence of economic factors. There is no doubt that economic factors can influence decisions related to having children to a significant extent, but these mainly have an effect on the timing of the first child and not directly on the decision whether to have a child at all. Our analysis did not allow us to explore the factors that lead to postponement of childbearing more deeply. We should have more cases in order to reveal more about potential effects of the employment trajectories (such as experiencing unemployment period(s), employment history of the partner or the role of self-employment and part-time jobs) on different forms of childlessness especially in the post-communist era.

In the present study we combined the explanatory forces of the life-course framework with the postponement transition, the second demographic transition, and the constrained capabilities approaches in our particular focus on postponement-related childlessness of Hungarian women and men. In this context,

childlessness seems to be more about practical difficulties than theoretical considerations: it is more about the lack of events (of establishing a partnership) and (work-life balance) opportunities than about the lack of preferences (to have children) especially in the—at least rhetorically—highly family-centred Hungarian society. However, the potentially oppressive consequences of an overly family-centred social climate should also be noted, especially if its central component is a narrow (hetero)normative family definition that ignores the diversity of people's lived experiences. (For instance, single women in their thirties can encounter negative public attitudes: equally condemning them as egoistic if they become a single mother or if they remain single and childless.)

On the basis of our GGS data sets we cannot tell the full story of Hungarian childlessness, but we did show that there are a variety of different childlessness categories, especially with respect to the transition to parenthood examined between 2001 and 2008.<sup>13</sup> Many details are left unelucidated by our present findings, but they reveal that the fluidity of the definition and content with childlessness can often derive from a series of path dependencies and repeated postponements.

However, we believe that this article contributes to a better understanding of an under-researched field of inquiry, especially in the post-socialist countries. We consider our present work as a starting point for further investigations, which should proceed with comparative analyses (and mixed methods) to further inquire into patterns of childlessness in Central and Eastern Europe.

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<sup>13</sup> Our present findings also prompt us to continue the large-scale qualitative data collection of childlessness narratives among Hungarian women and men: Narratives of Childlessness is a research task of the 'Families and Societies' European research project (<http://www.familiesandsocieties.eu/>), with the goal of collecting 100 in-depth interviews in Hungary.

independent research on family practices, work-life balance issues, and childlessness, as well as on the social exclusion/inclusion of LGBTQ+ people, the social history of homosexuality, and HIV/AIDS prevention. Her most recent publications include 'A Sense of Entitlement? Agency and Capabilities in Sweden and Hungary' (a chapter co-authored with B. Hobson and S. Fahlén, published by Oxford University Press in *Worklife Balance—The Agency & Capabilities Gap*) and *Homophobia and Genderphobia in the European Union: Policy Contexts and Empirical Evidence* (Stockholm: SIEPS); a list of her publications can be found at <http://www.policy.hu/takacs/publications.php>.

## References

- Balbo, N., F. Billari and M. Mills. 2013. 'Fertility in Advanced Societies: A Review of Research.' *European Journal of Population / Revue Européenne De Démographie* 29 (1):1–38, <http://dx.doi.org/10.1007/s10680-012-9277-y>.
- Bartels, D. M. 2004. 'Brave New Families: Modern Health Technologies and Family Creation.' Pp. 493–505 in *Handbook of Contemporary Families*, edited by M. Coleman and L. H. Ganong. Thousand Oaks, CA: SAGE Publications, <http://dx.doi.org/10.4135/9781412976022.n28>.
- Berrington, A. 2004. 'Perpetual Postponers? Women's, Men's and Couple's Fertility Intentions and Subsequent Fertility Behaviour.' *Population Trends* 117: 9–19.
- Billari, F. C. and H. Kohler. 2004. 'Patterns of Low and Very Low Fertility in Europe.' *Population Studies* 58 (2): 161–176, <http://dx.doi.org/10.1080/0032472042000213695>.
- Billari, F. C., H.-P. Kohler, G. Andersson and H. Lundström. 2007. 'Approaching the Limit: Long-term Trends in Late and Very Late Fertility.' *Population & Development Review* 33 (1): 149–170, <http://dx.doi.org/10.1111/j.1728-4457.2007.00162.x>.
- Billingsley, S. 2010. 'The Post-communist Fertility Puzzle.' *Population Research and Policy Review* 29 (2): 193–231, <http://dx.doi.org/10.1007/s11113-009-9136-7>.
- Bloom, D. E. and A. R. Pebley. 1982. 'Voluntary Childlessness: A Review of Evidence and Implications.' *Population Research and Policy Review* 1: 203–224, <http://dx.doi.org/10.1007/BF00140093>.
- Bloom, D. E. and J. Trussell. 1984. 'What Are the Determinants of Delayed Childbearing and Permanent Childlessness in the United States?' *Demography* 21 (4): 591–611, <http://dx.doi.org/10.2307/2060917> <http://dx.doi.org/10.2307/2060917>.
- Dannefer, D. 2003. 'Toward a Global Geography of the Life Course. Challenges of Late Modernity for Life Course Theory.' Pp 647–659 in *Handbook of the Life Course*, edited by J. T. Mortimer and M. J. Shanahan. New York: Kluwer, [http://dx.doi.org/10.1007/978-0-306-48247-2\\_29](http://dx.doi.org/10.1007/978-0-306-48247-2_29).
- De Jong, G. F. and R. R. Sell. 1977. 'Changes in Childlessness in the United States: A Demographic Path Analysis.' *Population Studies* 31 (1): 129–141, <http://dx.doi.org/10.1080/00324728.1977.10412751>.
- ESHRE. 2008. *Comparative Analysis of Medically Assisted Reproduction in the EU: Regulation and Technologies. Final Report*. Retrieved 4 August 2015 ([http://ec.europa.eu/health/blood\\_tissues\\_organs/docs/study\\_eshre\\_en.pdf](http://ec.europa.eu/health/blood_tissues_organs/docs/study_eshre_en.pdf)).
- European Commission. 2007. *Population Policy Acceptance Study—The Viewpoint of Citizens and Policy Actors Regarding the Management of Population Related Change*. Luxembourg: Office for Official Publications of the European Communities. Retrieved 10 March 2015 (<http://cordis.europa.eu/documents/documentlibrary/100124311EN6.pdf>).

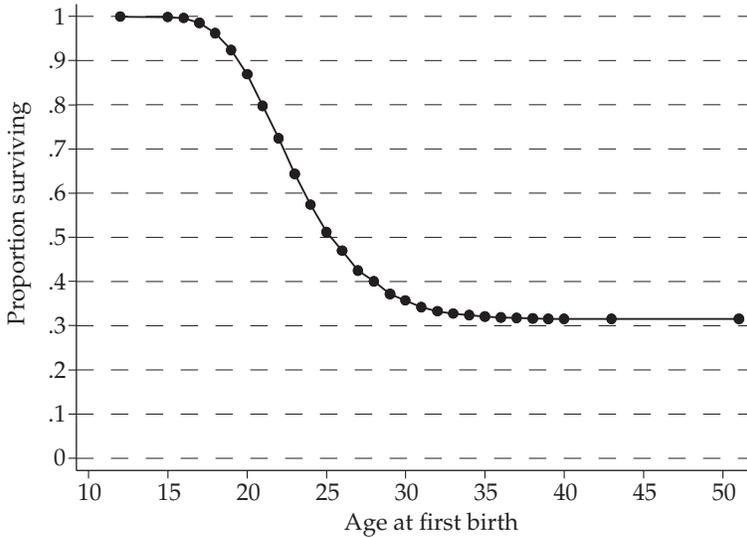
- European Commission. 2011. *The Demography Report 2010. Older, More Numerous and Diverse Europeans*. Luxembourg: Publications Office of the European Union.
- European Commission. 2014a. *Eurobarometer 75.4 (2011). TNS OPINION & SOCIAL*, Brussels [Producer]. GESIS Data Archive, Cologne. ZA5564 Data file Version 3.0.1.
- European Commission. 2014b. *Recent Trends in the Geographic Mobility of Workers in the EU*. Luxembourg: Publications Office of the European Union.
- Fasouliotis, S. J. and J. G. Schenker. 1999. 'Social Aspects in Assisted Reproduction.' *Human Reproduction Update* 5 (1): 26–39, <http://dx.doi.org/10.1093/humupd/5.1.26>.
- Festinger, L. 1957. *The Theory of Cognitive Dissonance*. New York: Harper & Row.
- Fieder, M., S. Huber and F. L. Bookstein. 2011. 'Socioeconomic Status, Marital Status and Childlessness in Men and Women: An Analysis of Census Data from Six Countries.' *Journal of Biosocial Science* 43 (5): 619–635, <http://dx.doi.org/10.1017/S002193201100023X>.
- Giddens, A. 1992. *The Transformation of Intimacy. Sexuality, Love and Eroticism in Modern Societies*. Stanford, CA: Stanford University Press.
- Gillespie, R. 2003. 'Childfree and Feminine: Understanding the Gender Identity of Voluntarily Childless Women.' *Gender and Society* 17 (1): 122–136, <http://dx.doi.org/10.1177/0891243202238982>.
- González, M-J. and T. Jurado-Guerrero. 2006. 'Remaining Childless in Affluent Economies: A Comparison of France, West Germany, Italy and Spain, 1994–2001.' *European Journal of Population* 22 (4): 317–352.
- Hagestad, G. O. and V. R. A. Call. 2007. 'Pathways to Childlessness.' *Journal of Family Issues* 28 (10): 1338–1361, <http://dx.doi.org/10.1177/0192513X07303836>.
- Hašková, H. 2010. 'Fertility Decline, the Postponement of Childbearing and the Increase in Childlessness in Central and Eastern Europe: A Gender Equality Approach.' Pp. 76–85 in *Women, Men, Work and Family in Europe*, edited by R. Crompton, S. Lewis and C. Lyonette. London: Palgrave Macmillan.
- Hašková, H. 2011. 'The Role of Work in Fertility Plans of Childless Men and Women in Their Thirties.' Pp 149–158 in *Value of Work: Updates on old Issues*, edited by V. Cuzzocrea and J. Laws. Oxford: Inter-Disciplinary Press.
- Heaton, T. B., C. K. Jacobson and K. Holland. 1999. 'Persistence and Change in Decisions to Remain Childless.' *Journal of Marriage and Family* 61 (2): 531–539, <http://dx.doi.org/10.2307/353767>.
- Hobson, B., S. Fahlén and J. Takács. 2014. 'A Sense of Entitlement? Agency and Capabilities in Sweden and Hungary.' Pp 57–91 in *Worklife Balance. The Agency & Capabilities Gap*, edited by B. Hobson. Oxford: Oxford University Press.
- Houseknecht, S. K. 1979. 'Timing of the Decision to Remain Voluntarily Childless: Evidence for Continuous Socialization.' *Psychology of Women Quarterly* (1): 81–96, <http://dx.doi.org/10.1111/j.1471-6402.1979.tb00700.x>.
- Hudson, N., L. Culley, E. Rapport, M. Johnson and A. Baharadwaj. 2009. 'Public Perceptions of Gamete Donation.' *Public Understanding of Science* 18 (1): 61–77, <http://dx.doi.org/10.1177/0963662507078396>.
- Huinink, J. 1995. 'Education, Work, and Family Patterns of Men: The Case of West Germany.' Pp. 247–262 in *The New Role of Women: Family Formation in Modern Societies*, edited by H. P. Blossfeld. Boulder, CA: Westview Press.
- Kapitány, B. (ed.) 2015. 'Terjed a gyermektelenség Magyarországon.' (Increasing childlessness in Hungary). *Korfa Népesedési hírlevél* XV (1): 1–4.
- Keizer, R. 2010. *Remaining Childless. Causes and Consequences from a Life Course Perspective*. Dissertation; Utrecht University. Enschede: Ipskamp Drukkers BV. Retrieved 3 August 2015 (<http://www.nkps.nl/Downloads/dissertatie%20renske%20keizer.pdf>).

- Kneale, D. and H. Joshi. 2008. 'Postponement and Childlessness: Evidence from Two British Cohorts.' *Demographic Research* 19: 1935–1964.
- Kohler, H. P., F. C. Billari and J. A. Ortega. 2002. 'The Emergence of Lowest-Low Fertility in Europe during the 1990s.' *Population and Development Review* 28 (4): 641–680, <http://dx.doi.org/10.1111/j.1728-4457.2002.00641.x>.
- Kohli, M. 1986. 'The World We Forgot: A Historical Review of the Life Course.' Pp. 271–3003 in *Later life. The social psychology of aging*, edited by V. W. Marshall. London: Sage.
- KSH (Central Office of Statistics). 2014. *Demográfiai Évkönyv, 2013*. (Demographic Yearbook, 2013). Budapest: KSH.
- Leridon, H. and R. Slama. 2008. 'The Impact of a Decline in Fecundity and of Pregnancy Postponement on Final Number of Children and Demand for Assisted Reproduction Technology.' *Human Reproduction* 23 (6): 1312–1319, <http://dx.doi.org/10.1093/humrep/den106>.
- Lesthaeghe, R. 1983. 'A Century of Demographic and Cultural Change in Western Europe: An Exploration of Underlying Dimensions.' *Population and Development Review* 3: 411–435, <http://dx.doi.org/10.2307/1973316>.
- Merz, E. M. and A. C. Liefbroer. 2012. 'The Attitude toward Voluntary Childlessness in Europe: Cultural and Institutional Explanations.' *Journal of Marriage and Family* 74 (3): 587–600, <http://dx.doi.org/10.1111/j.1741-3737.2012.00972.x>.
- Miettinen, A. and I. Szalma. 2014. 'Childlessness Intentions and Ideals in Europe.' *Finnish Yearbook of Population Research* 49: 31–55. Retrieved 10 March 2015 (<http://ojs.tsv.fi/index.php/fyp/article/view/48419>).
- Mills, M., R. R. Rindfuss, P. McDonald and E. te Velde. 2011. 'Why Do People Postpone Parenthood? Reasons and Social Policy Incentives.' *Human Reproduction Update* 17 (6): 848–860, <http://dx.doi.org/10.1093/humupd/dmr026>.
- Młynarska, M., A. Matysiak, A. Rybińska, V. Tocchioni and D. Vignoli. 2013. *Diverse Paths into Childlessness over the Life Course*. Zeszyty Naukowe, Instytutu Statystyki i Demografii, Szkoła Główna Handlowa, ISID Working Papers 34. Retrieved 10 March 2015 ([http://kolegia.sgh.waw.pl/pl/KAE/struktura/ISiD/publikacje/Documents/Working\\_Paper/ISID\\_WP\\_34\\_2013.pdf](http://kolegia.sgh.waw.pl/pl/KAE/struktura/ISiD/publikacje/Documents/Working_Paper/ISID_WP_34_2013.pdf)).
- Nicoletti, C. and M. L. Tanturri. 2008. 'Differences in Delaying Motherhood across European Countries: Empirical Evidence from the ECHP.' *European Journal of Population* 24 (2): 157–183, <http://dx.doi.org/10.1007/s10680-008-9161-y>.
- OECD. 2014. *OECD Family Database*. Paris: OECD. Retrieved 2 August 2015 ([www.oecd.org/social/family/database](http://www.oecd.org/social/family/database)).
- Paksi, V. and I. Szalma. 2009. 'Mikor vállaljunk gyereket?' (When should we have children?) *Szociológiai Szemle* 3: 92–116.
- Riley, M. W., R. Kahn and A. Foner. 1994. *Age and Structural Lag: Society's Failure to Provide Meaningful Opportunities in Work, Family and Leisure*. New York: Wiley-Interscience.
- Rowland, D. T. 2007. 'Historical Trends in Childlessness.' *Journal of Family Issues* 28 (10): 1311–1337, <http://dx.doi.org/10.1177/0192513X07303823>.
- Schoen, R., N. M. Astone, Y. J. Kim, C. A. Nathanson and J. M. Fields. 1999. 'Do Fertility Intentions Affect Fertility Behavior?' *Journal of Marriage and the Family* 61 (3): 790–799, <http://dx.doi.org/10.2307/353578>.
- Sen, A. 1987. *The Standard of Living*. (The Tanner Lectures) Cambridge: Cambridge University Press.
- Simó, T. 2006. *Ha nem jön a baba: a meddőség okai és kezelése*. (When there's no baby coming: the causes and treatment of infertility) Budapest: New Age Média Kft.
- Spéder, Z. and B. Kapitány. 2007. *Gyermekek: Vágyak és tények. Dinamikus termékenységi*

- elemzések.* (Children: desires and facts. dynamic fertility analyses) Budapest: KSH Népeségstudományi Kutatóintézet.
- Spéder, Z. and B. Kapitány. 2014. 'Failure to Realize Fertility Intentions: A Key Aspect of the Post-communist Fertility Transition.' *Population Research and Policy Review* 33 (3): 393–418, <http://dx.doi.org/10.1007/s11113-013-9313-6>.
- Szalma, I. 2010. 'Attitűdök a házasságról és a gyermekvállalásról.' (Attitudes towards marriage and childbearing) *Demográfia* 53 (1): 38–67.
- Szalma, I. and J. Takács. 2012. 'A gyermektelenséget meghatározó tényezők Magyarországon.' (Factors influencing childlessness in Hungary) *Demográfia* 55 (1): 44–68.
- Szalma, I. and J. Takács. 2014. 'Germektelenség—és ami mögötte van. Egy interjú vizsgálata eredményei.' (A qualitative study of childlessness from Hungary) *Demográfia* 57 (2–3): 109–137.
- Takács, J. 2013. 'Unattainable Desires? Childbearing Capabilities in Early 21st Century Hungary.' Pp 179–206 in *Childbearing, Women's Employment and Work-Life Balance Policies in Contemporary Europe*, edited by L. S. Oláh and E. Fratzczak. Basingstoke and New York: Palgrave Macmillan, <http://dx.doi.org/10.1057/9781137318541.0011>.
- Testa, M. R. 2006. *Childbearing Preferences and Family Issues in Europe*. Brussels: European Commission.
- Testa, M. R. 2012. *Family Sizes in Europe: Evidence from the 2011 Eurobarometer Survey*. European Demographic Research Papers 2. Vienna: Vienna Institute of Demography of the Austrian Academy of Sciences. Retrieved 2 August 2015 ([http://www.oew.ac.at/vid/download/edrp\\_2\\_2012.pdf](http://www.oew.ac.at/vid/download/edrp_2_2012.pdf)).
- van de Kaa, D. J. 1987. 'Europe's Second Demographic Transition.' *Population Bulletin* 42 (1): 1–59.
- Veevers, J. E. 1973. 'Voluntary Childlessness: A Neglected Area of Family Study.' *The Family Coordinator* 22 (2): 199–205, <http://dx.doi.org/10.2307/582108>.
- Widmer, E. D. and G. Ritschard. 2009. 'The De-standardization of the Life Course: Are Men and Women Equal?' *Advances in Life Course Research* 14 (1–2): 28–39, <http://dx.doi.org/10.1016/j.alcr.2009.04.001>.

## Appendix

**Diagram 1.** Kaplan-Meier survival estimate of the proportion of women having a first child at a certain age



**Diagram 2.** Kaplan-Meier survival estimate of the proportion of men having a first child at a certain age

