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Changing partnership trajectories in Hungary after World War II: generations and social groups

Introduction

The aim of the paper is the analysis in detail of partnership trajectories of men and women between the age of 18 and 30 years after World War II. The term 'trajectory' is one of the core concepts of life course research. (Elder 1985, Modell et al. 1976, Hareven 1986, Mayer 2004, Brückner and Mayer 2005) In my investigation 'trajectory' means the sequencing of different family statuses during early adulthood. Sociologically the transition from one family state to the other could be described best as changing family roles, but this qualitative content of 'family status' we do not discuss here further. The theoretical power of the notion 'trajectory' comes from the fact that we are not able to interpret family life path by concentrating on only one or two transition(s) during the family life course, and beside this on the timing of these transitions. True, there are some crucial family role transitions and timing is perhaps the most relevant characteristic of the transitions. However, the whole trajectory is also relevant to interpret family formation as a process into the long run. Further, the research of trajectories has high relevance in the second half of the XXth century because the second demographic turn affected individual life paths differently with different relevance of timing, sequencing and duration: some trajectories are in line with new demographic phenomena to a greater extent, others are connected to older forms. New family roles affect only a short period of some trajectories, others are restructured due to new patterns of family formation. We can clarify prevalence of new forms, restructured trajectories and the importance especially of sequencing and duration (which are rather neglected by researchers) only by regarding simultaneously timing, sequencing and duration.¹ Research questions and hypotheses: 1) What has changed regarding partnership trajectories of males and females between age of 18 and 30 after WW II? The hypothesis is that similarity patterns of

¹ As for methodological questions I am grateful to Dr. Cees H. Elzinga (Head of the Dept. of Social Science Research Methods Faculty of Social Sciences VU University Amsterdam) who has a userfriendly homepage and sent me some necessary complementary programs as well useful comments.

partnership trajectories add some relevant aspects to the existing demographic knowledge of gender specific partnership formation during early adulthood.

2) Differences in patterns of partnership trajectories can explain to a great extent the odds of the postponement of the first child’s birth after 30. In this hypothesis we assume that the influence of partnership trajectories is moderated by generation and education level.

Before we investigate these hypotheses in the case of both sexes separately, let's have a look at time series regarding marriage contraction and fertility as they highlight some tendencies in Hungary. The average age of marrying persons in case of men and women show an U-shaped dissemination in the period between the end of World War II and the Millenium (2000). Until the middle of this historical era there was a decline regarding the average age of first married persons and all married persons as well. The latest data after 2000 indicate a further increase in the average age at marriage contraction. **(Figure 1)**

The number of live-born children per thousand females compared to the nuptiality show an inverse distribution in historical comparison: in the middle of the study period the fertility of females has risen and at the end it has dramatically fallen. (Source of data: Demographic Yearbook, 2005, Hungarian Central Statistical Office – HCSO, register data.) **(Figure 2)**

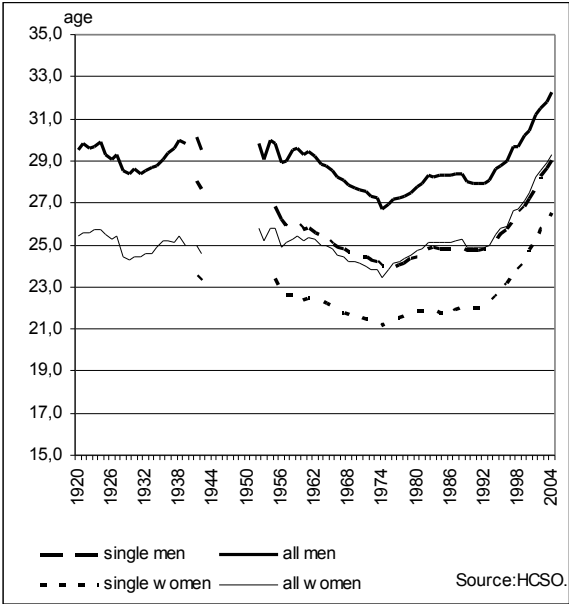


Figure 1 Average age of marrying persons by year of contraction, 1920-2004

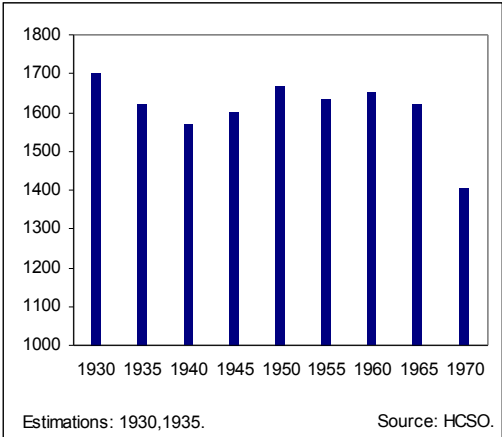


Figure 2 Number of live-born children per 1000 females by year of the birth of females, selected years

If we look at the survey data which will be used for testing the hypotheses of this paper we can conclude also that generations born appr. between 1942–1961 had relatively low age at the contraction of their first marriage and have relatively early their first child. Generations born after the 60s gradually experienced new tendencies labeled as the Second Demographic Turn. The oldest cohort studied, people born between 1932–1941 show to a some grade the postponement of marriage and the first child’s birth. (**Figure 3 – Figure 6**) These tendencies are are characteristic for generations of males and females as well. Log-Rank tests of Kaplan–Meier estimation are significant between paired cohorts with some exceptions ($p < 0,05$).²

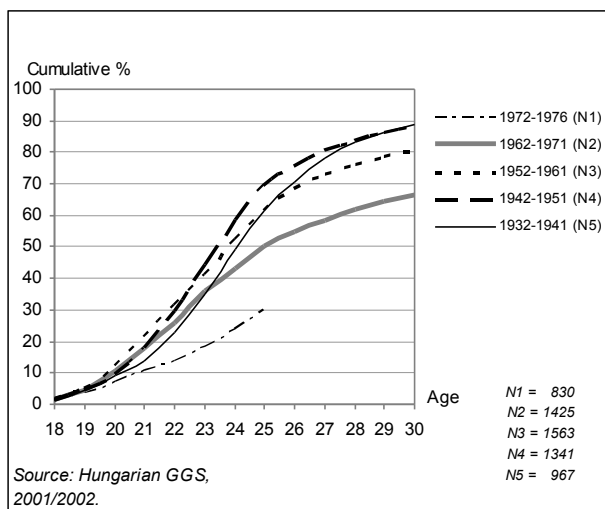


Figure 3 Timing of first marriage between 18 and 30 by birth cohort, *men*

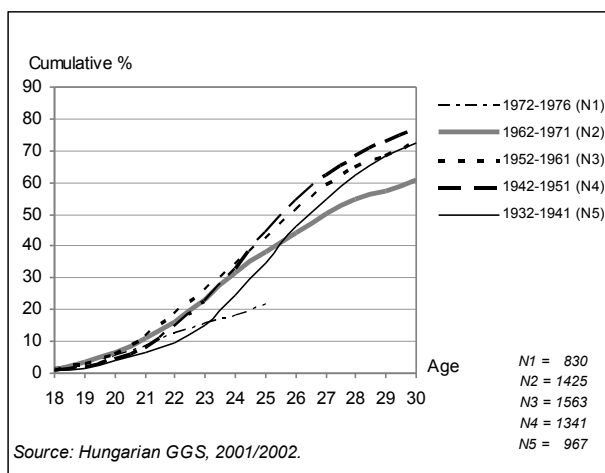


Figure 4 Timing of first child’s birth between 18 and 30 by birth cohort, *men*

² Kaplan-Meier estimations, log rank tests between two cohorts, and lacking significance in case of timing their first marriage ($p > 0,05$): N3–N4 (men), N3–N5 (men), N3–N4 (women), N4–N5 (women). Timing first birth ($p > 0,05$): N2–N5 (men), N3–N4 (men), N2–N4 (women), N4–N5 (women).

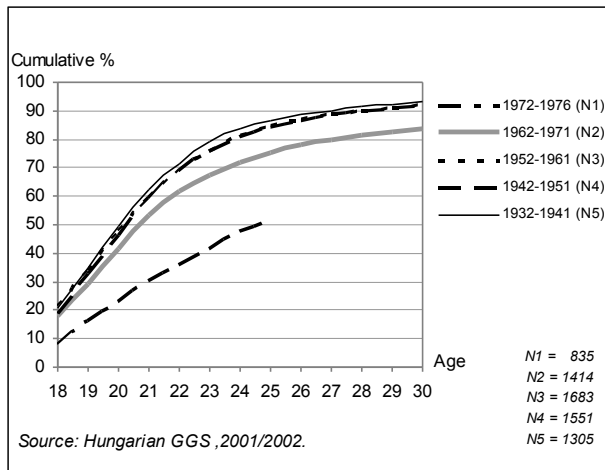


Figure 5 Timing of first marriage between 18 and 30 by birth cohort, women

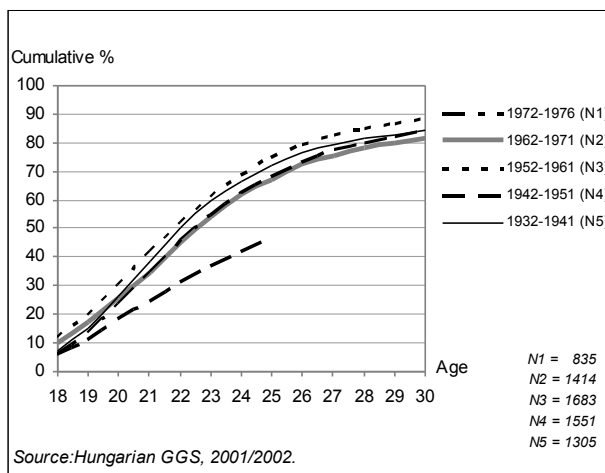


Figure 6 Timing of the first child's birth between 18 and 30 by birth cohort, women

'Trajectories' in life course research: theoretical and methodological investigations

Theoretically the investigation of trajectories is not new in sociological and life course research. However, methodologically this direction of research was more intense only after the 1990s. The notion of 'trajectory' was worked out in life course research by Elder, who pronounced early the equal consideration of timing, and sequencing, transition and trajectory. (Elder 1981, Elder 1994) Further research in family sociology was marginal as for sequencing of family roles: investigations of typical and atypical sequencing remained partly only statistical, whereas other authors highlighted the normative concepts in society as important topics. Simultaneously considering more than one or two role transitions, and the relationship between timing and sequencing has been developing step by step in sociology and demography. (Hogan 1978, Marini 1984a, Marini 1984b, Rindfuss et al. 1987) The above cited authors related sequencing to the prevalence of specific social norms regarding

sequencing of 'normal life course', others underlined the broad historical process of modernization. (p. ex. Kohli 1990) The recent socio-historical interpretation of trajectories ends in theoretical assumptions about the destandardization and individualization process of life courses. (Macmillan 2005, Jackson and Berkowitz 2005, Buchmann 1989, Shanahan 2000) In demography the paper of Rindfuss concluded the importance of the further investigation of family trajectories, as well as the intense level of 'diversity' for young life course. Brückner and Mayer specified the 'notion' of destandardization and plurality/diversity as the structural properties of trajectories. This paper is based on their theoretical base, and the aim here is the empirically tested, partly inductive research regarding the patterns of partnership trajectories.

Methodologically during the 1990s trajectories moved to the margins of sociological research, at least this was a technical development in life course research. This development is followed by some demographers and sociologists. (Abott and Tsay 2000, Setttersen and Mayer 1997) Billari's review clarified briefly the theoretical and the methodological background of this research direction (strong and weak conception of trajectories depending on the cognitive power of life course planing or contingency of life course events). (Billari 2001a) The Italian demographic results underlined the relevance of partnership formation as the structural force during early life course. (Billari 2001b, Billari and Picarreta 2005, Billari et al. 2006)

Pollock developed further the sequence analysis method of trajectories both theoretically and methodologically He highlighted the importance of simultaneous research of several sequences from one side, and the interpretative goal of this research method. The interpretation of this kind of research is in first order not causal but contextual, that means revealing the crossing influence of selections and constraints. (Pollock 2007) Further methodological innovation (selection criteria by clustering) lead to empirical relevant research results on labour market trajectories in Great Britain. (Martin et al. 2008) Some life course indicators regarding trajectories underpined the higher diversity and the historical change concerning Spanish young life course. (Baizán et al. 2002) The implementation of Optimal Matching on German partnership data series lead to the conclusion that young generations after WW II experienced moderate level of diversity in partnership formation, whereas high variance of partnership trajectories characterizes mainly the 1960s. The youngest German generation shows again to some extent standardized patterns. (Brückner and Mayer 2005, Brüderl and Scherer 2004) This paper builds on the mathematical investigation of Elzinga. The emprical results of Elzinga's method lead to some conclusions regarding female family trajectories: they separated analytically 'differentiation' (in their term 'turbulence') and

'diversity' of trajectories. 'Differentiation' concerns the higher variance of individual trajectories in timing, sequencing and duration. 'Diversity' refers to the grade of 'similarity' between trajectories of members of one cohort, age group or historical period. The comparison of family life course data in 19 countries ended in some conclusions: female family trajectories became historically more and more destandardized, but this does not mean that that trajectories have been more differentiated everywhere. As for Hungary they conclude also destandardization, but low level of 'turbulent' family life courses. They were searching in the paper for differences in family policy systems (social democratic, liberal and conservative systems) as constraints of the individual family life courses, but they did not find any clear patterns in that direction. Instead of differences between policies they revealed rather cultural and geographical patterns. (Elzinga and Liefbroer 2007, Thornton 2005) In the Former Communist countries they stated low grade of 'turbulence', little dissimilarity and variation, in all small grade of destandardization of family life paths (with exception of Estonia). In the Mediterranean countries results showed also little turbulence, low grade of destandardization, but there were some cross-cohort changes contrary to the former Communist Countries. There were small differences between the Western European Welfare Regimes, with high grade of destandardization in the USA and deviations also in New Zealand and Canada.

Study goals

This paper aims at working out one typology of partnership trajectories which covers relatively precisely the heterogeneity regarding timing, sequencing, duration and the family statuses which are parts of trajectories. Focusing on trajectories means also the presupposition that trajectories are not so diverse in the study period that they could not be covered by types. Life course research considers all kinds of pathways and histories of individuals and groups. The main presupposition of life course research is that all relevant events in the world are ordered according to time and also that time plays a significant role in how these events are unfolding. In this paper we look at the partnership trajectory as unfolding during early adulthood. The acquisition of the highest education and the birth of the person's first child are considered as 'time points' compared to the history of family statuses. (**Figure 7**) This viewpoint can be useful if we investigate specific questions. Other viewpoints involve the necessary inclusion of other trajectories regarded as event series. (Pollock 2007)

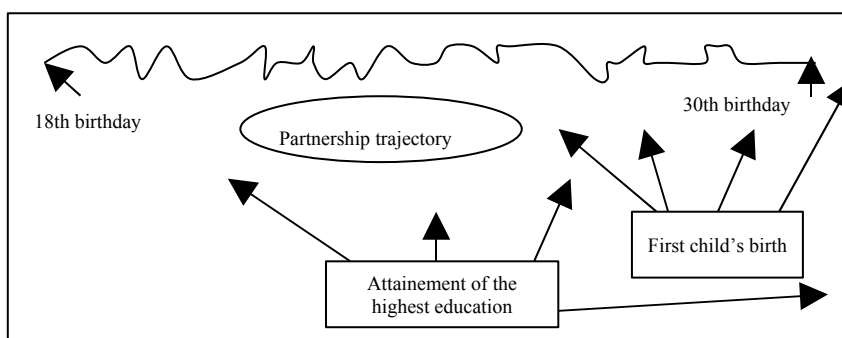


Figure 7 Partnership trajectory and other life course events

Data

Data come from the 1st wave of the Hungarian Generations and Gender Program (GGP), which was conducted on the turning of the year 2001/2002 in Hungary. Covered topics of the GGP: partnership history of people born 1932–1971.

Taking into account the refusal and failure of interviews the survey has a random sample stratified in more steps by region, size category of settlements and age category. The unit of the sample was the person, the basis population constituted the Hungarian citizens born between the January 1st, 1926 and the December 31st, 1983, who were alive on December 2001 31st, i.e. were between 18 and 75 of age at the time of the survey. During the process of sample selection and questioning the survey maker took into consideration not only the possible failures but also the refusals according to settlement and age category. The survey designers were also concerned to reach the groups living on this or that periphery of the society (romas or inhabitants of some districts in the capital city of Budapest), in order to ensure representativity in the survey. Special attention was paid to reach some younger population groups who show great mobility. The number of succesful interviews was 16.394 (67.9% of the initially contacted addresses). The row sample was interpolated according to the population survey conducted with the ideal time focus of the February 1st 2001 by sex, age, settlement type, education level and family status. The number of contracted marriages and births were also interpolated. (Kapitány ed., 2003) In this paper I considered a subsample covering people between 30 and 69 years. The lower boundary is necessary because the

research topic is the partnership trajectory between 18 and 30 years. The upper boundary was set because possible failures of the memory of old persons, so I excluded persons older than 69 years. (See Appendix for statistics of study subsamples)

As for the partnership trajectory I considered the *survey questions* about the current family status and the retrospective information on partnership history. Current family status was recorded according to the questions 'What is your current family status?' (Answer categories: single/married and living in one household/married and living in a separate household/widowed/divorced), 'Do you have a partner?', 'Since when have you been living together?'. The questionnaire recorded the date of the contraction of marriages and their dissolution, as well the direct cause of the dissolution (divorce or death). It was recorded also whether the marriage had been preceded by a cohabitation, and since when had it lasted. Besides these types of partnerships (marriage and living together before marriage) the person could name three significant periods of his or her life when she or he experienced a cohabitation which lasted at least 3 months (according to the question 'Have you ever been living together with a person in a partnership for at least 3 months without being married? (Apart from the current cohabitation)'). Data were recorded in each case by month and year.

At this point of a paper using *retrospective data* it is convenient to make a methodological remark about the 'distortion' of such methods. In a more precise epistemological setting we can not only state the 'distortion' of the activities of the memory but also we must take into consideration that retrospective data deals in each case with accounts of the *living* persons at the time of the survey. In case of survey methods it is more precise if we talk about the recorded experiences of age groups at a given time instead birth cohorts. We must also be aware that having such a retrospective view also means that we use our recent category system retrospectively: cohabitation was in the current form unknown by some age groups, they categorize their past experiences according to present categorical system. On the contrary, past living experiences were richer p.ex. the former prevalence of the so called 'engagement' between the two future married partners. 'Engagement' could end either in marriage or in separation. These forms can not be recorded exactly due to the present social norms and social institutions. In addition to the epistemological restriction I would like to mention the 'fragmentary' and 'constructive' character of the memory. The record of the exact data about marriage contraction and dissolution was strongly motivated by the interviewers in this case, but also regarding this issue persons could add and delete (i. e. „forget“) some real events. Another subjective and partly constructive work affected the selection of partnerships apart from marriage. In case of older respondents the past

partnership experiences lasted longer time, that means they selected the most relevant cohabitations from a longer life period than younger age groups. Further shortages of the current analysis of the diversity of partnership trajectories: we do not consider whether the same or not the same person was present in different transitions as a partner (p. ex. whether the former cohabiting partner became later the married partner of the respondent), the LAT (living apart together), and partnerships which are simultaneously run by the respondent. This situations increases theoretically the diversity of partnership trajectories.

Another possible methodological criticism could concern the properties of our random (sub)sample stratified in two steps and interpolated according to the characteristics of the census. We interpolated the rough sample only by the number of persons who had a definite family status at the time of the surveys, but we did not care about timing and sequencing. In this case we can refer only to the randomness of the sample stratified in two steps according to region, size category of settlements and age category.

I constructed a *database* which included the monthly data on the partnership status of the respondents between 18 and 30 years of age. I differentiated between 5 statuses: single (S), married (M), living together (L), divorced (D) and widowed (V). To each person belonged a sequence from 144 records. The younger cohort I chose also reached the 30th year of age, so I could compare sequences of equal length.

Measuring the highest attained education level included two questions: 'What is your highest attained (finished) education?'; 'In which year do you attained your highest education?'. The categories of the possible education are generally subsumed in four categories: 1. *primary and less education*: does not attended school (1), less than primary school (2), primary school (3); 2. *vocational education*: vocational school (4); 3. *General Certificate of Education (G.C.E.)*: vocational education with G.C.E. (5), G.C.E. in secondary school (6), tertiary education without diploma (7); 4. *tertiary education*: high school diploma (8), university diploma (9). In this paper we differentiated only between two levels: above and below G.G.E..

Sequence analysis methods: I used different measures included in *Cees H. Elzinga's sequence analysis program*, the most important among here them is the mathematical interpretation of 'distance' between sequences. I applied the computational program of Elzinga (CHESA 2.11, 'CHESA Manual 2.1', simplified versions of the program and the manual are available on Internet, <http://home.fsw.vu.nl/ch.elzinga/>). (Elzinga and Libbroer, 2007) The importance of the sequence analysis program of Elzinga lies in the better social and geometrical interpretability of the 'distance' and 'similarity' of trajectories and takes into

consideration timing, sequencing and duration of the statuses.³ By using this method we could work out so-called similarity classes which are 'near' to each other regarding the statuses, the timing, sequencing and duration. This typology of partnership trajectories is not so abstract as the general measure of similarity and explain the heterogeneity of the similarities of trajectories on an appropriate level.

I quote some measure of Elzinga's method which were used in order to work out the typology of partnership trajectories.

„If $u \in x$ and $u \in y$, we say that u is a common subsequence of x and y and we write $u \in S(x,y)$ where $S(x,y)$ denotes the set of common subsequences of the pair (x,y) . A particular subsequence may be embedded more than once in x : for example, if $x = S U M S U$, the subsequence $u = S U$ is embedded three times in x . We then write $|x|_u = 3$. We now define the **number of matching subsequences** of x and y as

$$m(x,y) = \sum_{u \in S(x,y)} |x|_u * |y|_u \quad (\text{Eq. 3.})$$

Thus, $m(x,y)$ depends upon the number of common subsequences of x and y , weighted by the frequency of occurrence of these subsequences in both x and y . The **distance** $d_m(x,y)$ is now defined as the number of non-common subsequences of both x and y , weighted by the frequency with which they occur in either sequence:

$$0 \leq d_m(x,y) = m(x,x) + m(y,y) - 2m(x,y) \quad (\text{Eq.4.})$$

This metric implies a mapping of each sequence x to a vector \mathbf{x} such that SQR of $m(x,x)$ corresponds to the length of that vector and such that SQR of $d_m(x,y)$ corresponds to the Euclidian distance between the vectors \mathbf{x} and \mathbf{y} . (SQR=Square Root)

$$0 \leq s_m(x,y) = \frac{m(x,y)}{\sqrt{m(x,x) \cdot m(y,y)}} \leq 1 \quad (\text{Eq.5.})$$

The [above] quantity corresponds to (the cosine of) the angle between the vectors. If x and y have no common subsequences, distance is maximal and $m(x,y) = 0$, and if $x = y$, all subsequences of x occur equally often in y hence $m(x,x) = m(y,y) = m(x,y)$ in which case $s_m(x,y) = 1$. Therefore, the natural interpretation of the quantity $s_m(x,y)$ is that of the **similarity** between the sequences x and y . (Details and algorithms, (Elzinga 2005).” (ibid.)

'Similarity' is based on 'distance' and as a summary indicator refers to the plurality of life paths among cohort members or age group members considering the kind of statuses which occurred, their sequences and timing. In this paper I will concentrate on the similarity classes and their interpretability as well as the relationship between timing, sequencing and duration. *Method*: K-means clustering based on the distances of partnership trajectories. Stopping rule: Calinski–Harabasz coefficients (according to methodological comparisons this coefficient sets an appropriate limit) and the number of class members. (Calinski and

³ Elzinga and Liefbroer refer briefly to the methodological discussions concerning sequence analysis. The main problem with the Optimal Matching (OM) method lies in the lackings of the way in which OM handles durations. Even more problem is caused by the interpretability of 'distance' using OM.

Harabasz 1974, Milligan and Cooper 1985) The clustering is made with the unweighted sample, however the frequencies in the tables came from the weighted sample.

Firstly, we develop the typology of partnership trajectories based on sequence analysis and describe the types. The main limitation of Elzinga's method lies in the fact that the summarization of similarity classes diminishes many properties of sequences and only some 'general' properties are considered if we use the centroid for describing one specific type. In this case the main drawback is that various sequences are summarized in one class which are grouped around one central type.

Furtherly, we look at the significance of partnership trajectories using them both as depending and explanatory variables in logistic regression models. *Secondly*, we investigate the relationship between belonging to one generation and the odds of specific partnership trajectories. The method is logistic regression with a binary dependent variable (the odds of one specific partnership trajectory type versus all other types together as reference category). The only explanatory variable is age group in 5-year intervals interpreted as generation. Generation is operationalized here with age group regarding the limits of survey method which can include only people living at the time of the survey. Generation is at the same time more than simply an age group. The sociological interpretation of generation covers common experiences, attitudes, situations among members of one generation (see in history of sociology Mannheim 1928). Beside the significance tests of the models we look at the fitting tests and expect good fitting even by using the only variable for generational effect. The interpretation of the model is that belonging to one generation can diminish or raise the odds of specific trajectory types.

Thirdly, we are looking at the postponement of the first child's birth after 30 (or childlessness until 30) as dependent variable.⁴ We assume that partnership trajectory as explanatory variable has a great effect on the odds ratios, but this influence is moderated by generation and education as well. Generation is measured again by age group in 5-year intervals, education as the highest attained level of education.⁵ I included in the analysis people who attained their highest education level until their 31th birthday as well people who finished their education career only after 30 (7,5% of 30–69 old male subsample N=5253;

⁴ Children born in the 30th year of age of parents are considered born until 30.

⁵ According to the study topic of life course between 18 and 30 we should measure the attained education before the 31th birthday of the person. However, the GGP recorded only the highest attained level and the year of attainment. So, we included all persons in the analysis because the restricted subsample (people who attained their highest education until 30) differed from the initial sample by partnership type (age groups and education level measured in 2 levels did not differ). One part of the differences lies in the missing cases of the question about the year of the attainment of the highest education level as possible failures of a retrospective study.

9,5% of 30–69 old female subsample N=5890). The later persons are considered also according their highest attained level (because the restricted possibilities of GGP). According to the interpretation here they were on the way to reach their highest education level. While the prevalence of cohabitation is extremely rare among members of generations born before WW II, we selected persons between 30–54 years (survey conducted in 2001). (See Appendix for Statistics of Subsamples)

All analyses are run separately for men and women. The rationale for this decision is that the descriptive analyses are based on register and survey statistics (see Introduction). For the investigation of the first hypothesis I use the descriptive analysis of the typology and the conclusions based on generational effects. Statements of the second hypothesis are related to the explanatory models of the postponement of the first child's birth after 30 (or childlessness until 30).

Partnership trajectories – Typology – Generations

Results

In the first step of the analysis I will describe the types of trajectories according to characteristic properties of timing, duration and sequencing in order to compare the partnership trajectories of men and women born between 1932–1971. In this way we get a comprehensive picture of the whole pathway.

In **Table 1** and **Table 2** I listed the similarity classes of partnership trajectories of men and women. Beside the descriptive statistics of the similarity measure I give the properties of the different classes regarding the most typical pattern of the class (centroid). For example: In case of men between 30–69 year the first class characterize the type 'S/69, M/76' that means after 69 months single status follow 76 months married status. If we label this sequence we can highlight the contraction of 'marriage around 24'.

In case of men I choose the typology of 7 classes based on the Calinski-Harabasz coefficient and the number of elements of the classes.⁶ The typology explains statistically 88,7% of the heterogeneity of the similarities in case of men (ANOVA; R^2 ; $p < 0,001$). Regarding the family formation of men between 18 and 30 year the following types are found: (1) '*marriage around 24*', (2) '*early marriage*', (3) '*late marriage*', (4) '*constantly single*',

⁶ The highest value of the CH-coefficient we get in case of 9 classes, but one of the classes had fewer members than 100 (1,2% of the subsample). The typology with 8 classes had no class with less member than 1%, but gave the same level of explanation of heterogeneity than the typology with 7 classes so I choose the last.

(5) 'remarriage after divorce and cohabitation', (6) 'marriage after cohabitation', (7) 'long lasting cohabitation'.

Women between 30–69 year experienced more types of young partnership formation trajectories between their 18th and 31th birthday than men.⁷ The typology covers statistically well the heterogeneity (ANOVA; $R^2=91,5$; $p < 0,001$). The descriptions of the 8 classes are according to the labeling of the 'centroid' the followings : (1) 'early marriage', (2) 'marriage around 22', (3) 'teenager's marriage', (4) 'late marriage', (5) 'remarriage after divorce and cohabitation', (6) 'cohabitation after divorce', (7) 'long lasting cohabitation', (8) 'constantly single'.

Cluster	Similarity		Distribution %	Characteristic sequence				Label
	mean	std. dev.		weighted		unweighted		
1	0,78	0,02	28,6	S/69	M/76			Marriage around 24
2	0,71	0,08	18,1	S/32	M/113			Early marriage
3	0,78	0,02	17,5	S/108	M/37			Late marriage
4	0,45	0,01	17,0	S/145				Constantly single
5	0,43	0,11	7,4	S/48	M/52	L/43	M/2	Remarriage after divorce and cohabitation
6	0,49	0,14	6,4	S/51	L/24	M/71		Marriage after cohabitation
7	0,23	0,09	5,0	S/96	L/49			Long lasting cohabitation
All	0,64	0,18	100,0	S/88	M/57			Marriage around 25
N=			5 296					
ANOVA		Sig.	***					
Dependent: Similarity		Eta ² =	0,887					
Explanatory: Cluster								

* $0,05 \leq p < 0,1$; ** $0,01 \leq p < 0,05$; *** $p < 0,01$, where p is the empirical significance (p -value).
The indications are the same in all tables.

Table 1 Partnership trajectories, matrix (similarity) clusters among 30-69 old men, life course between 18 and 30

⁷ In case of women the CH-coefficient indicated the typology with 10 classes, but among the classes was a small one (less than 1,2% of the subsample, with less than 100 members). The typology with 9 classes had three very small classes, each of them with the prevalence of 3%, so I chose the variant of 8 classes, where we had only one small class (2,8%). The drawback of this later typology is that it does not differentiate between 'SMLM' and 'SLM', the later is part of the former because it is so small.

Cluster	Similarity		Distribution %	Characteristic sequence			Label	
	mean	std. dev.						
	weighted		unweighted					
1	0,76	0,02	32,2	S/19	M/126		Early marriage	
2	0,76	0,03	21,8	S/53	M/92		Marriage around 22	
3	0,48	0,04	11,1	M/145			Teenager's marriage	
4	0,69	0,06	9,3	S/100	M/145		Late marriage	
5	0,40	0,13	8,3	S/32	M/12	L/35	M/66	Remarriage after divorce and cohabitation
6	0,25	0,00	7,8	S/145			Constantly single	
7	0,37	0,15	6,1	S/16	M/70	L/59		Cohabitation after divorce
8	0,12	0,06	3,3	S/69	L/76			Long lasting cohabitation
All	0,61	0,21	100,0	S/43	M/102			Marriage around 21-22
N=			5 952					
ANOVA		Sig.	***					
Dependent: Similarity		Eta ² =	0,915					
Explanatory: Cluster								

Table 2 Partnership trajectories, matrix (similarity) clusters among 30-69 old women, life course between 18 and 30

If we compare the *typology of partnership trajectories* among men and women we can make some preliminary conclusions based on the two pictures which are separately run statistical analyses. We can conclude that we found partly similar types of partnership trajectories of women and men, and partly different classes. 47% of the whole 30–69 old study group of men experienced the 'early' and 'meantime marriage (around 24)', whereas 65% of women the 'teenager's', 'early' and 'meantime marriage (around 22)'. 'Late marriage' is typical among males and females as well. Historically new partnership trajectories (sequential marriage, cohabitation) show similar frequency among men (19%) and women (18%), but there are differences in the subtypes. Both males and females experienced 'constantly single' status and 'long lasting cohabitation'.

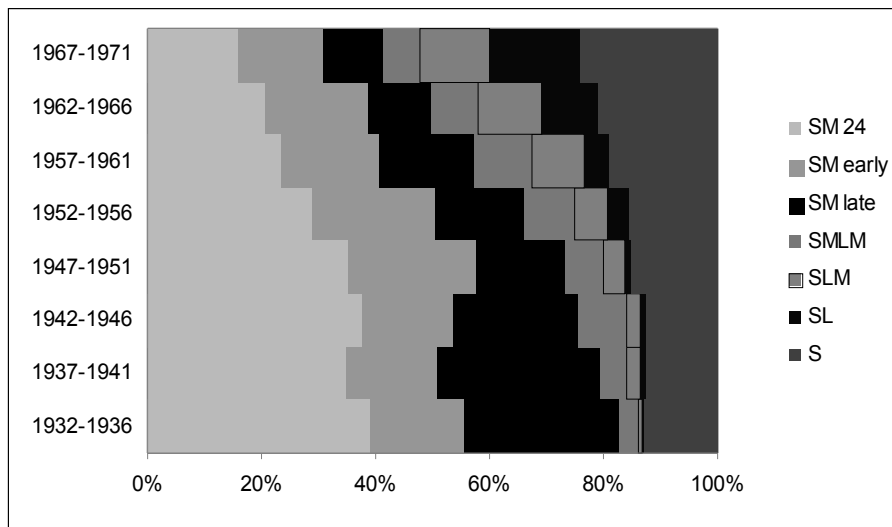


Figure 8 Types of partnership trajectories by birth cohort of men

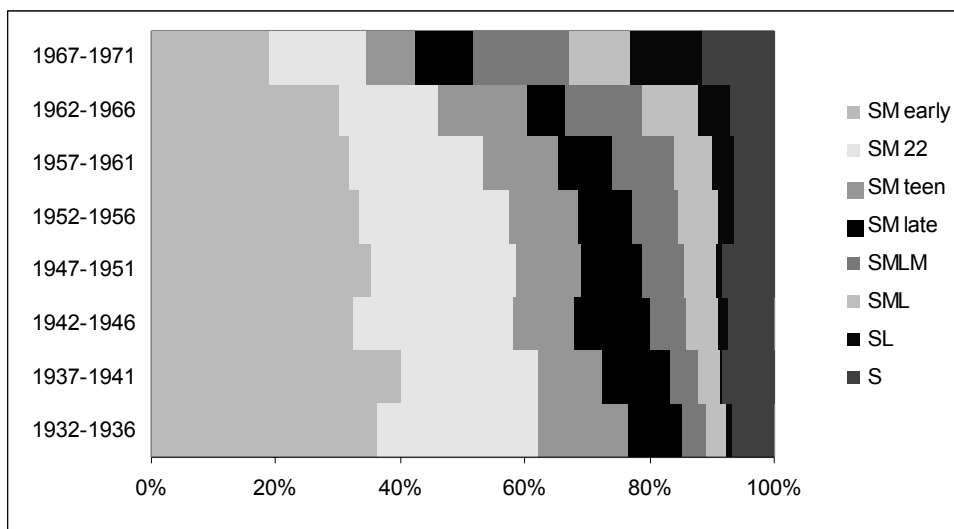


Figure 9 Types of partnership trajectories by birth cohort of women

In the following step of the analysis we investigate the generational effects on the partnership trajectories. (see **Figure 8–9** and **Appendix Table 3–4**) In this way we can see historical differences in the partnership formation among males and females.

Detailed results of men: The partnership trajectory of 30% of men between 30–69 years can be characterized with one contraction of 'marriage around 24'. This trajectory has the same prevalence up to the generation born around 1950, and then started to decline. The

'late marriage' (18% of men) also showed a declining trend and started to become less frequent even earlier than the first mentioned *'marriage around 24'*. The *'early marriage'* fall the first time only in the middle of the study period.

On the contrary, the *'remarriage after divorce and cohabitation'* started to rise after the generation born around 1940 *gradually*. Among the members of the following generations the odds ratios are 2-3 times higher than in the reference group (born 1932–1936). However, in the *youngest age group* of the study this odds ratio is smaller than previously (1,87). The *'constantly single'* status began to rise among members of the generation born after 1957.

Partnership trajectories which involve cohabitation are extremely rare among generations born before 1946, so the reference group in these analyses is the age group of 50–54 old men. Among members of the generations after this age group the prevalence of relatively *'long lasting cohabitation'* and *'marriage after cohabitation'* during this early life course has risen *gradually*. Members of the *youngest study age group* suddenly experienced the *'long lasting cohabitation'* by many times higher odds than the reference group. The fitting of the model by using the only explanatory variable of generation in order to estimate the odds ratio of the long lasting cohabitation versus all other trajectory types shows in this case a significant measure (Nagelkerke-R² = 0,109; p < 0,001). Regarding all other types of partnership trajectory there are statistically significant differences between generations, but only in this case generation has a role in order to deliver a fitted model to some extent.

Detailed results of women: The types of *'early marriage'* and *'marriage around 22'* began to decline after the generation born after 1957. *Compared to the men the decline of marriage is postponed with one generation.* Teenager's marriage has fallen to great extent during this historical period. *'Late marriage'* shows very few peculiarities according to generation. The *'constantly single'* status started to rise two generations later than in the case of men. *'Remarriage after divorce and cohabitation'* (which involves also marriage after cohabitation) has gradually risen, and the first mentioned type started even earlier than among men. However the *'cohabitation after marriage and divorce'* without marriage began to rise one generation later than *'remarriage after divorce and cohabitation'*.

The trajectory labeled by only one cohabitation between 18 and 30 began to rise among women similarly than among men in the same historical period but remained on a moderate level. The fitting of the model shows in the case of women a significant measure as well (the similar situation as among men, but with a smaller grade of fitting) (Nagelkerke-R² = 0,087; p < 0,001).

Discussion

The *first hypothesis* assumes that partnership trajectories show divergent tendencies in partnership formation of *men and women* during early adulthood and that this divergence goes beyond the well-known fact that men start their families later than women. The sequence analysis of partnership trajectories adds to the existing knowledge about gender differences in partnership formation. Based on the partnership typologies and the analysis by generation we can make some statements and therefore maintain only partly this hypothesis:

1. Hungarian men and women followed partly similar patterns of partnership formation during this period taking into consideration that the effect of the earlier partnership formation of women yields some typical patterns regarding timing.
2. This leads to the consequence that women experience a higher variety of typical patterns of trajectories between 18 and 30 as well.
3. However, men experienced new phenomena of the Second Demographic Turn historically earlier than women. Firstly, men experienced earlier the start of the decline of marriage. Secondly, males rejected the '*late marriage*' historically early, whereas among females this type shows few specificities according to the generation. Thirdly, men live typically in relatively high share in '*long lasting cohabitation*' without marrying before 30, and in '*constantly single*' status until the 31th birthday compared to other male trajectories. Women followed historically later these patterns.
4. Generation plays a significant role regarding '*long lasting cohabitation*' in the case of both sexes. There is a sudden growth among members of the youngest study group (born between 1967–1971).

As regards the whole picture of the early partnership trajectories, historical roots of *pluralism* lie rather in differences of the timing of marriage during young life course. Sixty years ago the timing was not fixed in Hungary, both men and women married in their *early mid- and late twenties* but they contracted marriage until their 31th birthday typically. However, the prevalence of the different *types* of trajectories is at the end of the XXth century rather balanced, than it used to be formerly (however we use our recent category system and ignore some nowadays rejected old types of partnership). Timing, sequencing and duration have all some influence on specific patterns of partnership trajectories. Changing pattern of family formation in Hungary can be maintained similarly to investigations of Elzinga and

Liefbroer (2006), and concerning the youngest generation even accelerated. Not only timing, but the other two characteristics of trajectories have relevance as regards the interpretation of family formation before 30. The thesis of the postponed family formation of men could be interpreted at the end of the XX century so, that this postponement of men has the consequence that they experienced historically earlier new partnership types and women caught up a generation later.

Cohabitation is not a homogenous category. Earlier results on this issue can be kept according to this paper. (Heuveline and Timbarlake 2003) We can follow the gradual dissemination of this type of partnership after divorce in Hungary. (Spéder 2005; in Hungarian) According to our results men and women strived gradually more and more to establish some form of partnership after divorce (remarriage or cohabitation) whereas among members of the youngest study group of men this type has declined. In the case of the youngest age group of the study population there are stronger dissemination effects which are governed by generational effects. One part of the cohabitations are 'preparatory' phases before marriage. However, one other part of cohabitations which are started after 18 can be transformed to long lasting cohabitations without marrying until the 31th birthday.

The generational effects can be furtherly interpreted as structured by economic situation, social policy and as ruled by reorientation in values and attitudes as well. Additionally, according to the 'narrative' statistics of partnership sequences we cannot make conclusions in this direction but can deal with *relationships between partnership forms*.

Hungarian changing patterns can be described appropriately by using trajectory types, and this type of analysis can be refine the notion of pluralization. (see the theoretical claims of Brückner and Mayer 2005) Hungarian changing family formation patterns are in line with several other above cited international results, but the notion of 'pluralism' can have a special interpretation due to the typology. New standardized patterns have been not detected in the study period as for example earlier in Germany or Sweden. (Brüderl and Scherer 2004; Elzinga and Liefbroer 2007)

It can be summarized that there were some gradual changes regarding the types of partnership after World War II until the Millenium. Marriage has lost its prevalence gradually, and cohabitation became step-by-step more significant for the first time after divorce. While men experience later family events because they start the family life later than women they could be more affected by generational effects and started to reject marriage historically earlier and became inclined to cohabitation. In the generation born after 1967 new tendencies of partnership formation are more obvious.

Partnership trajectories and postponement of the first child's birth after 30 (or childlessness until 30)

Results

The second hypothesis claims that partnership trajectories are in strong relationship with the first child's birth and this relationship is moderated by generation and/or education level. Male and female trajectories are investigated separately. The dependent variable is the postponement of the first child's birth after 30 (binomial variable: birth of the first child until the 31th birthday versus postponement or childlessness).

Results of men between 30–69 years (survey conducted in 2001) are presented in **Table 3**: If we regard the odds ratios of the postponement of the first child's birth after 30 years of age and include in the model first only the generation we can see gradually the increase of the postponement (or childlessness) in the case of younger age groups (Nagelkerke-R² = 0,030; $p < 0,001$). The younger generations postponed with gradually higher odds the birth of the first child after 30. Confidence intervals (on 95% level) are in the case of each age group partly overlapping.

If we include in the model, after controlling for generation, the highest attained level of the education we will see that education does not moderate the influence of the generation. Education is not significant in the model ($p < 0,05$).

The final model shows the influence of partnership trajectories on the postponement of the first child's birth after controlling for generation and education level considering the trajectories and the child birth until the 31th birthday of the male person. Odds ratios of the postponement (or childlessness) are indicated (the reference category is that the person has a child until his 31th birthday). In the case of each explanatory variable the last category is the reference category and the odds ratios of other categories indicate the deviations from this category.

The first result of the final model is that compared to the previous preliminary models the influence of partnership trajectories has risen the fitting of the model in a significant measure (Nagelkerke-R² = 0,587; $p < 0,001$). Secondly, the influence of generation and education on the studied odds ratios has changed to some extent. If we control for generation and partnership trajectories the low level of educational attainment differs from the high level in the direction that in the first case the odds of the postponement are significantly small compared to the high level. Further, if we look at the odds ratios of the various age groups we

can conclude that only two categories in the middle have significantly smaller odds ratios for postponement of the first child. We get in this way the U-shaped influence of the generation and the significance of the difference between the low and the high educational attainment. That means after controlling education and partnership trajectories the older and younger generations in the study group do not differ regarding the postponement (and childlessness) after 30. Until the millenium (2001) there were some generations born between 1952–1961 which experienced significantly lower odds for postponement compared to older and younger generations.

The odds ratios in the categories of the partnership trajectories signalize the well-known effect that trajectories which involve cohabitation show higher odds for the postponement of the first child compared to trajectories which involve marriage. Beside this general conclusion the typology gives possibility for deeper investigations. The reference category is the odds for postponement in case of '*constantly single*' trajectory which is relatively far from the other categories. The widest range to this level shows the '*marriage around 24*' and the '*early marriage*'. Close to this two are the odds of '*marriage after cohabitation*'. '*Late marriage*' and '*remarriage after cohabitation*' show a little higher odds for postponement, their odds are relatively closer to the '*constantly single*' trajectory. The nearest category to the reference category is the '*long lasting cohabitation*', however this show odds by 87% smaller for postponement.

Results of women between 30–69 years (survey conducted in 2001) are shown in **Table 4**: If we include in the model first only generation we cannot follow exactly gradually the increase of the odds of the postponement of the first child's birth (or childlessness). There are rather some indications for the U-shaped differences with lower odds in the middle but the youngest reference age group shows the highest odds (Nagelkerke- $R^2 = 0,027$; $p < 0,001$). If we control for educational attainment as well, this U-shaped difference is more pronounced. In this second model low education category differs significantly from the reference category (Nagelkerke- $R^2 = 0,052$, $p < 0,001$). Including education corrected the statistical fitting of the model.

If we control for education and partnership trajectory the effect of generation in case of women is U-shaped: only two categories in the model have significantly lower odds for postponement. However these two age groups are not the same as in case of men. There is a shifting by one 5-year age category: the lower odds are shown in case of women born between 1957–1966. The fitting of the model is much better, partnership trajectories have a

significant effect on postponement (Nagelkerke-R² = 0,422; p < 0,001). Low education category differs from the high reference category.

Partnership trajectories can be grouped again according to their distance from the reference category of the '*constantly single*' trajectory. The widest distance show '*early marriage*', '*marriage around 22*' and '*teenager's marriage*'. '*Late marriage*', '*remarriage after divorce and cohabitation*' and '*cohabitation after divorce*' are a little bit closer to the reference category. Similar to men the '*long lasting cohabitation*' is the nearest to the '*constantly single*' trajectory with 77% lower odds for the postponement.⁸

Discussion

Statistical results indicate that we can maintain the hypothesis that the postponement of the first child's birth is in strong relationship with partnership trajectories and this is moderated by generation and education. On the crucial role of partnership formation there were earlier results on Italy which can be maintained also in Hungary. (Billari et al. 2006) In case of men and women this moderational effect is not the same. In case of females the U-shaped model of the generational effect is stronger and shifted (by one generation), and the influence of educational attainment is also stronger. The U-shaped generational effect indicates effects of the historical situation. The historical period is characterized in the middle by social policies of the socialist system (including family policies) compared to situations of economic crises (immediately after WW II and beginning from the 1980s). There are significant differences between partnership trajectories and especially '*long lasting cohabitation*' can be compared to the possible effects of '*constantly single*' trajectory regarding the odds of the first child's postponement.

⁸ We make two methodological remarks: 1) If we restrict the sample not only according to the age, but consider only persons who reach their highest education level until their 31th birthday the statistical results of the same models are close to the whole sample of persons aged 30-54 years, and the interpretation does not differ. 2) The final logistic regression models incorporated some cells with very low values (even some cells with one value). In order to avoid this we can reduce the number of categories regarding age group (because we will keep partnership trajectories in the initial form). These later models are presented in the Appendix. However, if we consider age group in 10-year intervals we cannot follow the latest tendencies of the youngest study generation born after 1967. For 30-49 old men the results and interpretation of the model with 10 year wide generations are quite close to the above. For 30-49 old women the effect of education and partnership trajectory is close to the above, but 30-39 old females does not differ from 40-49 old females regarding the odds ratios of the postponement of the first child's birth after controlling for education and partnership trajectory type.

Odds ratio of the postponement of the first child's birth after 30 (or childlessness until 30) 30–54 old men (born between 1947–1971)

Method: Logistic regression with binary dependent variable

Subsample: 30–54 old men (born between 1947–1971)

Dependent variable:

Postponement of the first child's birth after 30

No (=Reference category) 68,65%

Yes 31,35%

N= 3712

Model 1. Explanatory variable: age group

Model fitting (Chi-Square) $p < 0,001$

Explanatory variables	Exp (B)	p	95% confidence interval for Exp (B)	
			lower bound	upper bound
<i>Age group</i>		***		
50–54	0,427	***	0,341	0,533
45–49	0,457	***	0,370	0,565
40–44	0,527	***	0,423	0,656
35–39	0,692	***	0,559	0,858
30–34 (reference category)				
<i>Nagelkerke R²</i>	0,030			

Model 2. Explanatory variables: age group, highest attained education

Model fitting (Chi-Square) $p < 0,001$

Explanatory variables	Exp (B)	p	95% confidence interval for Exp (B)	
			lower bound	upper bound
<i>Age group</i>		***		
50–54	0,427	***	0,341	0,533
45–49	0,457	***	0,370	0,565
40–44	0,527	***	0,424	0,656
35–39	0,692	***	0,559	0,858
30–34 (reference category)				
<i>Education</i>		no		
Vocational education and lower G.C.E. and higher (ref. cat.)		no		
<i>Nagelkerke R²</i>	0,030			

Model 3. Explanatory variables: age group, highest attained education, partnership trajectory

Model fitting (Chi-Square) $p < 0,001$

The dependent variable has only one value observed in 4 (5,7%) subpopulations.

Explanatory variables	Exp (B)	p	95% confidence interval for Exp (B)	
			lower bound	upper bound
<i>Age group</i>		*		
50–54		no		
45–49	0,713	**	0,524	0,969
40–44	0,636	***	0,463	0,874
35–39		no		
30–34 (reference category)				
<i>Education</i>		*		
Vocational education and lower G.C.E. and higher (ref. cat.)	0,813	*	0,660	1,001
<i>Partnership trajectory</i>		***		
Marriage around 24	0,006	***	0,004	0,009
Early marriage	0,004	***	0,003	0,007
Late marriage	0,023	***	0,016	0,033
Remarriage after divorce and cohabitation	0,021	***	0,014	0,031
Marriage after cohabitation	0,011	***	0,007	0,017
Long lasting cohabitation	0,126	***	0,085	0,188
Constantly single (ref. cat.)				
<i>Nagelkerke R²</i>	0,587			

Table 3

Odds ratio of the postponement of the first child's birth after 30 (or childlessness until 30) 30–54 old women (born between 1947–1971)

Method: Logistic regression with binary dependent variable

Subsample: 30–54 old women (born between 1947–1971)

Dependent variable:

Postponement of the first child's birth after 30

No (=Reference category) 85,19%

Yes 14,81%

N= 3915

Model 1. Explanatory variable: age group

Model fitting (Chi-Square) 0,001

Explanatory variables	Exp (B)	p	95% confidence interval for Exp (B)	
			lower bound	upper bound
Age group		***		
50–54	0,576	***	0,446	0,742
45–49	0,463	***	0,359	0,597
40–44	0,378	***	0,283	0,505
35–39	0,438	***	0,328	0,584
30–34 (reference category)				
<i>Nagelkerke R²</i>	0,027			

Model 2. Explanatory variables: age group, highest attained education

Model fitting (Chi-Square) 0,001

Explanatory variables	Exp (B)	p	95% confidence interval for Exp (B)	
			lower bound	upper bound
Age group		***		
50–54	0,596	***	0,461	0,770
45–49	0,476	***	0,368	0,615
40–44	0,377	***	0,282	0,505
35–39	0,436	***	0,326	0,582
30–34 (reference category)				
Education		***		
Vocational education and lower G.C.E. and higher (ref. cat.)	0,504	***	0,419	0,606
<i>Nagelkerke R²</i>	0,052			

Model 3. Explanatory variables: age group, highest attained education, partnership trajectory

Model fitting (Chi-Square) 0,001

The dependent variable has only one value observed in 6 (7,5%) subpopulations.

Explanatory variables	Exp (B)	p	95% confidence interval for Exp (B)	
			lower bound	upper bound
Age group		***		
50–54		no		
45–49		no		
40–44	0,550	***	0,383	0,790
35–39	0,578	***	0,405	0,825
30–34 (reference category)				
Education		***		
Vocational education and lower G.C.E. and higher (ref. cat.)	0,523	***	0,414	0,662
Partnership trajectory		***		
Early marriage	0,012	***	0,008	0,017
Marriage around 22	0,016	***	0,010	0,024
Teenager's marriage	0,006	***	0,002	0,013
Late marriage	0,052	***	0,035	0,077
Remarriage after divorce and cohabitation	0,040	***	0,026	0,060
Cohabitation after divorce	0,063	***	0,041	0,095
Long lasting cohabitation	0,232	***	0,153	0,351
Constantly single (ref. cat.)				
<i>Nagelkerke R²</i>	0,422			

Table 4

Final conclusions

This paper worked out the typology of partnership trajectories during early adulthood between 18 and 30 in Hungary. The reference population were people living after the Millennium (2001/2002) who answered the survey questions and were between 30 and 69 years of age. We run separately the analyses for men and women taking into consideration the descriptive register and survey data on the postponed family start of males and the different remarriage rates after divorce compared to females as well. The goal of the analysis was to reveal the significance of the variety of partnership trajectories as types. It was assumed that types cover statistically appropriately the variety of partnership trajectories and we can keep this presupposition for the study period. We found partly diverse trajectory types among men and women, but there are similar types too. Women experience a greater variety of trajectories during early adulthood. Both results can be related to the fact that women start earlier their family formation. At the same time we expected to gain some additional knowledge from these typologies and investigated the odds ratios of specific trajectories among members of different generations. Some phenomena of the Second Demographic Turn were experienced by males historically earlier than women (cohabitation after divorce, single status), and men rejected the late marriage gradually, whereas various female generations kept alive this pattern in a relatively moderate share. The historical roots of pluralistic trajectories lie in the timing, while new family starting patterns were added by younger generations. There is a significant change in case of the youngest study group born after 1971. The change of patterns means in terms of trajectories that there are not only timing (in this case delay of marriage), but sequence and duration relevance as well. The later means that long lasting cohabitation is a different type than the 'preparatory' cohabitation before marriage.

The postponement of the first child's birth can be explained by partnership trajectories to a great extent according to the results of the second hypothesis. This influence is moderated by generation and education but there are exceptional categories where this influence is not present. The separate analyses for males and females revealed further deviations and similarities regarding the two sexes.

One possible direction of further investigations is the relationship between the emergence of new partnership trajectories and generations. Experiences of WW II and the financial and social hardship afterwards can explain the early postponement of the first marriage and the first child's birth whereas the years of consolidation of socialism (including social and family policies) stopped this and favored early family formation. Generations

born after the 70s (children of the 'consolidated' parents) experienced new forms of family formation. There is an additional factor for further research beside the economic hardship during and after WWII and after the 80s as well as the attitudes of generations. The typology of partnership trajectories could help to investigate the relationship between family statuses: the spread of cohabitation as an intermediary status between two marriages, the duration of cohabitation and the contraction of marriage. Partnership trajectories can reveal patterns of social relationships as emerging or as disappearing.

Appendix

Statistics of male subsamples

Variable and categories	Percentage	Variable and categories	Percentage
Subsample 1: 30-69 old men		Subsample 2: 30-54 old men	
<i>Age group</i>		<i>Age group (years old)</i>	
65-69	8,72	50-54	19,55
60-64	9,54	45-49	23,03
55-59	11,61	40-44	19,05
50-54	13,71	35-39	18,52
45-49	16,15	30-34	19,86
40-44	13,36	N=	3714
35-39	12,99	<i>Education</i>	
30-34	13,93	Vocational education and lower	63,44
N=	5296	G.C.E. and higher	36,56
<i>Partnership trajectory</i>		N=	3714
Marriage around 24	28,61	<i>Partnership trajectory</i>	
Early marriage	18,08	Marriage around 24	25,01
Late marriage	17,52	Early marriage	18,85
Remarriage after divorce and cohabitation	7,39	Late marriage	14,12
Marriage after cohabitation	6,36	Remarriage after divorce and cohabitation	7,98
Long lasting cohabitation	5,03	Marriage after cohabitation	8,37
Constantly single	17,01	Long lasting cohabitation	6,80
N=	5296	Constantly single	18,87
Subsample 3: 30-49 old men		N=	3714
<i>Age group (years old)</i>			
30-39	52,30		
40-49	47,70		
N=	2988		
<i>Education</i>			
Vocational education and lower	64,06		
G.C.E. and higher	35,94		
N=	2988		
<i>Partnership trajectory</i>			
Marriage around 24	22,48		
Early marriage	18,04		
Late marriage	13,75		
Remarriage after divorce and cohabitation	8,27		
Marriage after cohabitation	9,48		
Long lasting cohabitation	8,19		
Constantly single	19,79		
N=	2988		

Table 1 (Appendix)

Statistics of female subsamples

Variable and categories	Distribution
Subsample 1: 30-69 old women	
<i>Age group</i>	
65-69	10,47
60-64	11,45
55-59	12,29
50-54	13,76
45-49	15,99
40-44	12,29
35-39	11,17
30-34	12,58
N=	5953
<i>Partnership trajectory</i>	
Early marriage	32,24
Marriage around 22	21,81
Teenager's marriage	11,13
Late marriage	9,33
(Re)marriage after (divorce and) cohabitation	8,28
Cohabitation after divorce	6,10
Long lasting cohabitation	3,33
Constantly single	7,77
N=	5953

Subsample 3: 30-49 old women

<i>Age group (years old)</i>	
30-39	54,34
40-49	45,66
N=	3097
<i>Education</i>	
Vocational education and lower G.C.E. and higher	48,95
N=	3097
<i>Partnership trajectory</i>	
Early marriage	28,81
Marriage around 22	19,69
Teenager's marriage	11,14
Late marriage	8,29
(Re)marriage after (divorce and) cohabitation	11,06
Cohabitation after divorce	7,65
Long lasting cohabitation	5,50
Constantly single	7,85
N=	3097

Variable and categories	Distribution
Subsample 2: 30-54 old women	
<i>Age group (years old)</i>	
50-54	20,91
45-49	24,30
40-44	18,68
35-39	16,98
30-34	19,13
N=	3916
<i>Education</i>	
Vocational education and lower G.C.E. and higher	49,76
N=	3916
<i>Partnership trajectory</i>	
Early marriage	30,18
Marriage around 22	20,46
Teenager's marriage	10,96
Late marriage	8,62
(Re)marriage after (divorce and) cohabitation	10,14
Cohabitation after divorce	7,17
Long lasting cohabitation	4,56
Constantly single	7,92
N=	3916

Table 2 (Appendix)

Odds ratios of partnership trajectories between 18 and 30

Binary logistic regression, 30-69 old men

One trajectory type *versus* all other types together

(= reference category)

Age group		Marriage around 24		Early marriage		Late marriage	
		Exp(B)	p	Exp(B)	p	Exp(B)	p
65-69 = Ref.							
60-64	years	-	-	-	-	-	-
55-59		-	-	-	-	0,75	**
50-54		-	-	1,43	**	0,50	***
45-49		0,64	***	1,37	**	0,50	***
40-44		0,48	***	-	-	0,54	***
35-39		0,41	***	-	-	0,34	***
30-34		0,30	***	-	-	0,32	***
Nagelkerke R ²		0,045		0,007		0,037	
Model p<		0,001		0,001		0,001	
N=		5296		5296		5296	

Age group		Remarriage after divorce and cohabitation		Constantly single	
		Exp(B)	p	Exp(B)	p
65-69 = Ref.					
60-64	years	-	-	-	-
55-59		2,71	***	-	-
50-54		2,05	**	-	-
45-49		2,76	***	-	-
40-44		3,09	***	1,60	***
35-39		2,43	***	1,83	***
30-34		1,87	**	2,17	***
Nagelkerke R ²		0,014		0,019	
Model p<		0,001		0,001	
N=		5296		5296	

Age group		Marriage after cohabitation		Long lasting cohabitation	
		Exp(B)	p	Exp(B)	p
50-54 = Ref.					
45-49	years	1,58	**	3,23	***
40-44		2,59	***	4,17	***
35-39		3,23	***	9,64	***
30-34		3,54	***	17,15	***
Nagelkerke R ²		0,032		0,109	
Model p<		0,001		0,001	
N=		3714		3714	

Table 3 (Appendix)

Odds ratios of partnership trajectories between 18 and 30

Binary logistic regression, 30-69 old women

One trajectory type versus all other types together
(= reference category)

Age group	Early marriage		Marriage around 22		Teenager's marriage		Late marriage	
	Exp(B)	p	Exp(B)	p	Exp(B)	p	Exp(B)	p
65-69 = Ref.								
60-64	-	-	-	-	0,68	**	-	-
55-59	-	-	-	-	0,65	**	1,42	*
50-54	-	-	-	-	0,67	**	-	-
45-49	-	-	-	-	0,75	*	-	-
40-44	0,82	*	0,79	*	-	-	-	-
35-39	0,76	**	0,55	***	-	-	0,69	*
30-34	0,41	***	0,55	***	0,48	***	-	-
Nagelkerke R ²	0,023		0,012		0,008		0,006	
Model p<	0,001		0,001		0,05		0,05	
N=	5953		5952		5953		5953	

Korcsoport	Remarriage after divorce and cohabitation		Cohabitation after divorce		Constantly single	
	Exp(B)	p	Exp(B)	p	Exp(B)	p
65-69 = Ref.						
60-64	-	-	-	-	-	-
55-59	1,63	*	-	-	-	-
50-54	1,88	**	1,59	*	-	-
45-49	2,08	***	1,88	**	-	-
40-44	2,93	***	1,80	**	-	-
35-39	3,84	***	2,68	***	-	-
30-34	4,83	***	3,16	***	1,83	***
Nagelkerke R ²	0,041		0,021		0,008	
Model p<	0,001		0,001		0,05	
N=	5953		5953		5953	

Korcsoport	Long lasting cohabitation	
	Exp(B)	p
50-54 = Ref.		
45-49	2,70	**
40-44	3,50	***
35-39	5,50	***
30-34	12,95	***
Nagelkerke R ²	0,087	
Model p<	0,001	
N=	3916	

Table 4 (Appendix)

Odds ratio of the postponement of the first child's birth after 30 (or childlessness until 30) 30–49 old men (born between 1952–1971)

Method: Logistic regression with binary dependent variable

Subsample: 30–49 old men (born between 1952–1971)

Dependent variable:

Postponement of the first child's birth after 30

No (=Reference category) 67,04%

Yes 32,96%

N= 2987

Model 3. Explanatory variables: age group, highest attained education, partnership trajectory

Model fitting (Chi-Square) p < 0,001

Explanatory variables	Exp (B)	p	95% confidence interval for Exp (B)	
			lower bound	upper bound
<i>Age group</i>		**		
40–49	0,761	**	0,603	0,959
30–39 (reference category)				
<i>Education</i>		**		
Vocational education and lower G.C.E. and higher (ref. cat.)	0,788	**	0,624	0,997
<i>Partnership trajectory</i>		***		
Marriage around 24	0,004	***	0,003	0,007
Early marriage	0,003	***	0,002	0,006
Late marriage	0,017	***	0,011	0,027
Remarriage after divorce and cohabitation	0,016	***	0,010	0,025
Marriage after cohabitation	0,009	***	0,005	0,014
Long lasting cohabitation	0,098	***	0,063	0,154
Constantly single (ref. cat.)				
<i>Nagelkerke R²</i>	0,613			

Table 5 (Appendix)

Odds ratio of the postponement of the first child's birth after 30 (or childlessness until 30) 30–49 old women (born between 1952–1971)

Method: Logistic regression with binary dependent variable

Subsample: 30–49 old women (born between 1952–1971)

Dependent variable:

Postponement of the first child's birth after 30

No (=Reference category) 85,30%

Yes 14,70%

N= 3096

Model 3. Explanatory variables: age group, highest attained education, partnership trajectory

Model fitting (Chi-Square) 0,001

Explanatory variables	Exp (B)	p	95% confidence interval for Exp (B)	
			lower bound	upper bound
<i>Age group</i>		no		
40–49		no		
30–39 (reference category)				
<i>Education</i>		***		
Vocational education and lower G.C.E. and higher (ref. cat.)	0,476	***	0,365	0,623
<i>Partnership trajectory</i>		***		
Early marriage	0,009	***	0,005	0,014
Marriage around 22	0,015	***	0,009	0,024
Teenager's marriage	0,006	***	0,003	0,015
Late marriage	0,058	***	0,037	0,091
Remarriage after divorce and cohabitation	0,038	***	0,024	0,060
Cohabitation after divorce	0,059	***	0,037	0,094
Long lasting cohabitation	0,224	***	0,144	0,346
Constantly single (ref. cat.)				
<i>Nagelkerke R²</i>	0,431			

Table 6 (Appendix)

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