CHANGES IN SOCIAL MOBILITY IN HUNGARY DURING THE TRANSITION PERIOD*

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Abstract: The paper analyzes social mobility data for Hungary from surveys conducted by the Hungarian Central Statistical Office in 1983, 1992 and 2000. The main focus is put on testing Treiman's modernization hypothesis that was posed in 1970 and is still widely cited today in the context of transition. The fitted models are graphical models based on directed acyclic graphs and the values of marginal log-linear parameters (as proposed in Rudas and Bergsma 2004) are used to gain insight into the strength of associations. The main findings include that the process of status-attainment seems to be basically unchanged for women, but some of the Treiman-like associations move toward greater social closure. That is our findings do not support the hypothesis of a trend toward increasing social fluidity in Hungary between the early 1980s and 2000.

Key words: social mobility, occupational mobility, status attainment, modernization hypothesis, log-linear model

> *"This is what I regret the most, that today's [children] miss a lot of things because we cannot afford them. The possibilities are far greater today than when we were young, but not for everybody. I cannot afford the English language camp for my children (…). And the books, everything is so expensive (…). In the past there were no such big differences, one did not feel less than the others. My son's classmates, well the majority's parents are managers, bankers, white-collar workers. I cannot keep up with them."*
> (46 year old female worker of a former socialist company, cited by Bartha 2002)
> *"I built a store chain from nothing (without the help of my parents) which is still yielding interest for me and I would not like anybody to be jealous for this because either with my two hands or with my brain but*

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*still I created it!!! Everybody has the possibility for this (…) Everybody
is given the chance, all one has to do is grab it, though it is true that
among difficult circumstances, but if one wants something then he
should go for it, with brain and willpower!!!!"*
(Jakiss's shortened and edited comment from the Politics online forum
of *Népszabadság* from *Let us Take it from the Rich* topic, May 2005)

The two quotations from the motto show the contradiction detected in public
opinion regarding the effects of the transition period on social chances. These
contradictions served as a motivation for the present paper. Its objective is the
empirical investigation of the changes in mobility that happened in the past two
decades. Another motivation is the availability of a new empirical analytical
methodology, which allows for the correct description of casual models used routinely
in sociological researches.

BACKGROUND

The Importance of the Topic

According to Treiman's often cited modernization hypothesis, the
economical-technological development leads to a more open society regarding
mobility as the increasing bureaucratization of work makes the direct passing on of
positions more difficult. However, the job market of a developed economy rewards
abilities achieved through formal education. According to the hypothesis the spread of
education, more comprehensive mass communication, greater urbanization and the
increasing geographical mobility all lead to the direction of the demolition of the rigid
class system (Treiman 1970)[1]. When comparing mobility tables of 1973, 1983 and
1992, Andorka et al. detect the uncertain and slow decrease of social inequality in
Hungary which they see as a weak support of the thesis (Andorka et al. 1994). In a
Hungarian study conducted among men between 1973 and 1993 Luijkx et al. (1995)
managed to show the increasing trend of the effect of education and the decreasing
trend of origin, however, neither of the tendencies was stable, a certain regression was
detectable from the middle of the 80s. According to their interpretation these results do
not contradict but rather support Treiman's statement as the economic performance
deterioration which started from the second part of the eighties can be regarded as a
setback of the industrialization and modernization processes.

The question is whether the comparison of these arguments is really suitable for
testing the thesis of industrialization? The transition period is a multi-dimensional
process, with inseparably intertwined political, economic, social and cultural
components. Attributing unilaterally the changes to industrialization would mean the
merging of the different reasons.

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1   The hypothesis is formally defined by some sub-hypotheses, see section *The Model*.

It is also worth considering the widening of the time frame of the analysis. As Luijkx et al also mention, from several aspects 1992-1993 was the bottom of the negative accompanying symptoms of the economic change following the transition period. As by now there are more up to date data *available* a later period following the stabilization of the economic-social change could also be indicated as a point of reference.

Another doubtful point is the issue of the reaction time of macro-social processes. If we assume the political changes as acting factors, when could their appearance be expected in our mobility models? This problem is seldom mentioned explicitly, although similar issues arise; e.g. Breen and Luijkx (2004) mention the following problem: *To take the case of 'social democracy': would we expect fluidity to be greater in countries that are currently social democratic, or would it not be more plausible to suppose that sustained social democracy over a long period (the dates of which would need to be specified) would be more relevant?* Classical international studies usually cover a one-two decade-long time, implicitly assuming that social processes react to economic/political changes in such a long time. As the above examples show national studies make the same assumptions when testing the hypothesis of industrialization.

Finally, it is not an independent problem that during the examination of the transition period we are mainly talking about processes which started prior to the transition period regarding both the economic dimensions (the quasi-market forms and the macro-level crisis symptoms, the appearance of reduction in employment) and the political, educational dimensions. For example according to Gazsó and Laki (2004) the increase of selection mechanisms based on origin or the governments backing out from their chance-balancer role did not start during the transition period; it is rather the continuation of the mechanisms of the last decade of state socialism.

In the followings we shall compare the data regarding the acquisition of status recorded in 1983, 1992 and 2000. *Our research question stems from the classical modernization hypothesis: how has the association between the paternal status (education, occupation) and that of the offspring changed during the examined period?* According to the problems mentioned above the tendencies detected will not be interpreted simply as the consequences of economic development (already started in the 80s) but as the consequences of the many components of the transition period. We would avoid saying that the objective is to monitor the social effects of the transition period – the effect of economic decline might already be detected in these data but that of growth most probably not yet.

The Period Examined

The analysis uses the data of the *Social Mobility Research* of 1983 and 1992 of the Hungarian Central Statistical Bureau and the data of the *Survey of Lifestyle and Time Use* of 2000. This period cannot be regarded as one with a continuous development but rather as one of two opposite poles showing a U-shape. Kézdi (2002) is the one who mentioned the two-phased nature of the 1986–1999 period from the labor market point of view with a dividing point in 1995. According to his analysis the first phase was

characterized by a major destruction of jobs and large inter-sectoral reallocation, whereas the second phase was characterized by a halt in the decrease of employment, the increase of the ratio of people with higher education and by the quicker increase of yield of education measured by the salaries. Kolosi and Róbert (2004) discuss the phases of transition from a sociological point of view.

Theoretical Background, Former Investigations

The usually employed theories during the *longitudinal* examination of the transition period rely on the explanation theories of previous international, primarily comparative *cross-sectional* studies. Thus, basically functionalist *economic* explanations originally coming from Lipset and Zetterberg, corrected by Blau and Duncan and Treiman arise which are based on the presumed similar structure of industrial societies – these would predict social opening following economic growth.[2] It is also worth mentioning the *political* explanations examining the effect of political organizations on stratification. Surveys concentrating on a political approach showed significant differences even within the socialist block – traced back primarily to nation-specific historical characteristics - and did not find the existence of a socialist mobility sample as a special type justified (Simkus 1981; Kurz and Müller 1897). According to other surveys as in some countries with not left-wing governments the level of mobility is similar to those countries with left wing governments, political intervention, although presumed but is still not the only social determining factor (e.g. Breen and Luijkx 2004). Thus, as opposed to the economic approach in the case of the political hypothesis it is not possible to talk about a straightforward 'forecast' regarding the political transition.

There is a third thesis contradicting these two, which see the changes in the mobility patterns as a systematic (and explainable) process. The third version is attributed to Sorokin (1964: 142) seeing the changes of the absolute rates of mobility from a wider historical perspective as a *trendless fluctuation*. A newer version of the hypothesis which can be linked to the third generation of mobility researches of the CASMIN project assumes the stability of the pattern and level of the relative mobility chances (*social fluidity*) independent of the concrete distribution of social stratification in the industrialized countries.

Similarly to Sorokin, although based on a different theory, de Boudon (1974) also denies the tendency of the growth of equality. According to his opinion even if the association between origin and education level weakens, disadvantageous origin still appears when entering the labor market, that is in the status achieved –, thus the inequalities are shifted one layer up. In his classical analysis Mare (1981) also denies the optimistic expectations related to the democratization of education. He reveals that inequalities of origin increased on higher education levels even despite expansion.

2   The implication of the newest meritocratic theories is similar, such for example that of Jonsson (1992) who introduced the hypothesis of *Increased Merit Selection* which says that in postindustrial societies due to their efficiency-lead nature, individual merits become the key aspects of access to education and later on to the attainment of a labor market position.

Coming to the previous studies related to the theories affecting the issue of the present research: the comparative international study of Treiman and Yip (1989) is usually cited as the empirical justification of the modernization thesis. In their research they examine through the data of 21 cross-section researches of countries on a different level of industrialization the effect of paternal occupation and the offspring's educational level on the offspring's occupation. It is important to note that in his hypothesis Treiman following the theoretical and methodological line of second generation mobility researches distinguishes direct and total effects and in this research he works accordingly with the coefficients of multiple regression models as the equivalent of direct effects. According to his results in the more industrialized countries the effect of education on occupation is stronger and that of paternal occupation is weaker, that is he manages to prove the industrialization – social openness association.

In another often cited newer work Goldthorpe (1996) arrives at the conclusion that although the researches done in the 60s and 70s regarding the direct effects between occupation, educational level and paternal occupation more or less really justify the principle of Increased Merit Selection (see *Footnote 2*), works of the 90s based on data of England, Wales and Sweden come to an exactly contrary conclusion. According to Goldthorpe's interpretation these results might also be caused by real changes besides the different methods of the researches: modern societies even despite the widely held opinion most probably work less "efficiently".

Among the surveys conducted in Hungary the results of the research of Luijkx et al. 1995 were already mentioned in the introductory section; it is also worth mentioning about the work that due to the multiple logistical regression employed, similarly to the above, defines defines numerically the education – occupation and paternal occupation – occupation direct effects. According to the developed version of this study (Luijkx et al. 2002) a significant shift can be detected from ascription towards achievement, its time interval (1989 is the end point), however, does not fit our present question. It is still worth mentioning it because it takes into consideration not only economic but also political explanations.

Bukodi's work (2001) belongs to the new Hungarian publications regarding *intergenerational occupational mobility*. According to her results mobility among generations has hardly changed between 1983 and 1992 and has decreased by 2000. The author defines the extent of mobility with total mobility rate. In her later work (2003) based on these same data she breaks down this total mobility rate to vertical and horizontal rates[3] which makes it clear that during this period vertical mobility (that is prestige-changing mobility) has not changed because parallel to the decreasing total mobility the rate of horizontal mobility has also decreased. As part of a new

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3 To the exact definition of mobility rates: all three rates can be interpreted along a given classification. Total mobility rate can be determined as a ratio of respondents belonging to a different class than their father. It is reasonable to further split the total mobility rate to vertical and horizontal mobility rates where vertical mobility is achieved between occupations with different prestige, whereas horizontal mobility between occupations with similar prestige. Viz. there is not necessarily a prestige ranking behind the occupational classifications, e.g. occupations treated separately on the EGP scale such as dealers, tradesmen and service providers or manual supervisors and skilled workers are usually featured on the same level.

international study Róbert and Bukodi (2004) also analyze the two-dimensional association of parental occupation – occupation where they use the models developed by Erikson and Goldthorpe in their work entitled *Constant Flux.* By comparing the years 1973, 1983, 1992 and 2000 they find that the previous mobility increase has slowed down extremely in the 90s among women and in the case of men it has turned back.

Among the results of Hungarian sociology regarding the *effect of origin on educational level* primarily from the aspect of methodology it is worth mentioning the research of Andorka and Simkus (1983) reacting to the results of Boudon and Mare. The explicit objective of the authors was to measure the change of mobility regardless of the effect of educational expansion so they applied log-linear analysis.

Due to the importance of the topic regarding educational policy several new Hungarian studies were made in this issue. Szekelyi et al. (1998) examine the change in effect of origin in a research conducted among students in higher education where the family background of freshmen and graduates was compared. According to their results the ratio of those coming from a lower status family is greater among freshmen. According to Gazsó and Laki (2004) this comparison is not relevant because its subject is the difference between freshmen and graduates but not the change of chances. It is indeed possible to argue against the method that students, who dropped out in the meantime, are possibly children of parents with lower status level. Based on the data of 1973, 1997 and 2000 Gazsó and Laki compare the background of students of universities and colleges and basically they experience no change: according to their interpretation the expansion of higher education has not become linked to reduction of inequalities.[4] Based on 1992 data Bukodi (1995) examines the direct association between the level of education and paternal occupation and educational level with a multiple regression model. Change in time is measured by splitting the sample in age groups as if making a cross-sectional cohort-analysis. However, real changes cannot be completely reliably detected even with this method. The problem of this cohort-analysis is that the older cohorts are not complete due to mortality which might be a problem because in Hungary the social determination of life expectancy is quite strong (e.g. Kovács and Hablicsek 2006).

Further research results based on data from the end of the 90s show a strong influence of origin with regard to educational performance, state Andor and Liskó (2000) or Róbert (2004). These studies, however, do not make comparisons with data of previous years.

In the above and in the following we have already stressed and will continue doing so that the difference of the individual results might be for technical reasons making the reader unsure. Our objective, however, is not in the least to discredit empirical researches but rather to emphasize the importance of standardization in comparative studies, like Breen and Luijkx (2004) state: *When our focus is comparative, as it is here, the question must be raised of the extent to which our data do indeed consistently reflect the association between origins and destinations in the relevant population.*

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4 At first hearing this statement might seem paradoxical; however, mathematically it is not: as the previously mentioned results of Mare (1981) show, the change of the ratio of people achieving a certain qualification is independent from the changes of social inequalities.

Variations between surveys in the definition of the population, in sampling design, in response rates, and in measurement error, may all give rise to observed differences in fluidity – though these issues are usually ignored in mobility research.

METHODS

The Method of Analysis

Using graph-models as marginal log-linear models for categorical data is a completely new approach (Rudas and Bergsma 2004; Rudas et al. 2006). This methodology could be used for the categorical data of mobility researches because causal models are often used in this area (status achievement models) and as discussed below the typical approaches of the field become statistically phrasable with the usage of the log-linear parameters.

The essence of the model is that with its help it is possible to describe multi-step, complex processes similarly to those shown in *Figure 1* or *2*, with obvious-to-interpret parameters. Let us see the models of *Figure 1* as examples.

Figure 1. Two Types of Status Attainment Model (Spirtes et al. 1993; Kolosi 2006)
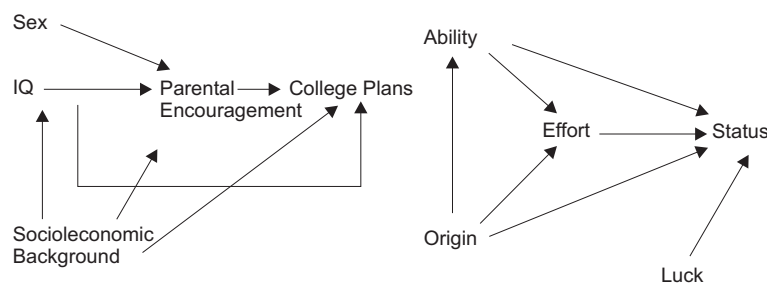
The first graph is built on the classical survey of Sewell and Shah (1968), since then several others dealt with it, the present form of the graph is suggested with Spirtes (1993). The model represents the process of making the decision regarding higher education studies starting from the objective socio-demographic factors through the psychological factors depending on these, allowing a deeper understanding of this process than following the usual way (e.g. using logistic regression) when considering the decision as a dependent variable and all other variables as explaining variables of the same level. This deeper understanding is achieved, for example, by the fact that we also get a picture about the decisive factors of parental encouragement, or that we can also separate the direct (independent from all other factors) and indirect (perceptible through parental encouragement) effects of intelligence influencing plans for higher

education. The second model of the figure is the AOLE model (Ability, Origin, Luck, Effort) suggested by Kolosi (2006), also modeling a multi-step status achievement process.

The mathematical name of the models in *Figure 1* and *2* is *directed acyclic graph*-model (in short graph model in the followings), where the vertices of the graphs represent the variables and the arrows the conditional association between them. The lack of an arrow between two vertices is equivalent to a conditional independence, applying the following rule (Lauritzen 1996):

A given V variable is conditionally independent from its nondescendants given its parents where the nondescendants are those vertices which cannot be accessed from V in a directed path, whereas the vertices from where an arrow points to V are regarded as parents.

According to the rule in the first model of *Figure 1* e.g. the decision for higher education studies is conditionally independent from its nondescendant, that is sex, given its parents, that is all other variables. Sex is furthermore independent from intelligence and social background, in fact without condition as sex does not have parents. Using the rule the second graph implies the independence of e.g. luck in the AOLE model from origin, ability and achievement.

In case of categorical variables the graph model can be regarded as a marginal log-linear model. In fact, the holding of the corresponding conditional independent statements are equivalent to certain marginal log-linear parameters being zero (Rudas and Bergsma 2004; Rudas et al. 2006). These parameters are calculated not from the total table as in the case of traditional log-linear parameters (e.g. Rudas 1998) but from the marginals of those.

Traditional log-linear parameters can be interpreted as the average strength of conditional association between the given variables, conditioned on all other variables. Marginal parameters can be interpreted in a similar way, taking all other variables of the marginal as "all other variables". For example, among the parameters defining the AOLE model according to the parameterization suggested by Rudas, Bergsma and Németh (2006), the λ_{AE}^{OAE} and the λ_{EL}^{OAEL} parameters appear. According to the usual terminology of *marginal* log-linear parameters the upper index gives the marginal belonging to the parameter whereas the lower index is the *effect* belonging to the parameter. It should be noted that the two parameters are defined in different marginals, this is why this parameterization cannot be defined in the classical log-linear analysis. The first parameter measures strength of the conditional association between ability and effort conditioned on origin. With the usual terminology we can say that we are measuring the *direct effect* of ability on effort adjusted for origin. Here the wording of direct effect contrasts the parameter with the *total effect,* which without correction would be provided by the parameter λ_{AE}^{AE}.

The other λ_{EL}^{OAEL} parameter of the model defines the conditional association of effort and luck given origin and ability. The value of this parameter according to the model is zero as effort is conditionally independent from luck given the other two variables (parents) presented in the marginal.

As stated each edge of the graphics can be regarded as a certain conditional association, whereas deletion of an edge implies conditional independence represented

in the parameterization. In case of the LISREL (*linear structural equation*) model widely used in social sciences the interpretation of the parameters is much more difficult (Cox and Wermuth 2001) and – because it is built on several local regression equations – the consistency of the individual equations is not guaranteed (Rudas and Bergsma 2004).

The Model

The present research questions refer to the effects of the status achievement model shown in *Figure 2* of Treiman taken from Duncan–Featherman–Duncan (Treiman 1970). In the model the broken line represents the FeO effect not featured but otherwise "conceivable" in the model. (The original model also contains income missing from our databases but this difference does not affect the associations here, they are identical.) By using the above rule, the model can be equivalently defined with the following conditional independence statement:

$$O \perp Fe \mid Efo. \tag{1}$$

In his modernization hypothesis Treiman formulated concrete sub-hypotheses, according to this with modernization the following effects weaken:
1. father's occupation – occupational total effect,
2. father's occupation –occupation direct effect,
3. father's occupation – education direct effect,
at the same time the following effects strengthen:
4. education – occupation direct effect.

Figure 2. The Model

Fe: Father's education
Fo: Father's occupation
E: Education
O: Occupation
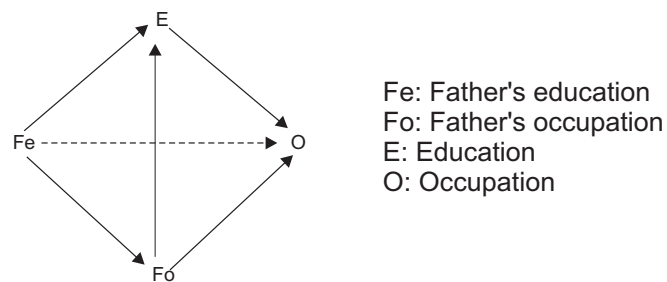
The objective of the analysis is to examine the changes of the associations following the sub-hypotheses with the help of the marginal log-linear parameters. The research is done separately by gender as several previous studies showed differences by gender in the issues discussed (fresh Hungarian example Róbert and Bukodi 2004).

It is important to emphasize that the above log-linear parameters are independent from the marginals of the tables, so for example in the father-offspring comparisons in a favorable way they show only the changes independent from the changes of the occupational structure or – with another example – eliminate the effect of the higher education expansion. Obviously, the classical log-linear analysis has the same favorable characteristics as Andorka and Simkus (1983) emphasize when explaining the use of the methodology.

Following Rudas, Bergsma and Németh (2006) the distribution according to the model can be given with the following marginal log-linear parameters:

$$\lambda_{\varnothing}^{Fe},\lambda_{Fe}^{Fe},\lambda_{Fo}^{FeFo},\lambda_{FeFo}^{FeFo},\lambda_{E}^{FeFoE},\lambda_{FeE}^{FeFoE},\lambda_{FoE}^{FeFoE},\lambda_{FeFoE}^{FeFoE},\lambda_{O}^{FeFoEO},\lambda_{FoO}^{FeFoEO},\lambda_{EO}^{FeFoEO},\lambda_{FeFoO}^{FeFoEO} \quad (2)$$

According to statement (1) the value of the following parameters is zero:

$$\lambda_{FeO}^{FeFoEO},\lambda_{FeFoO}^{FeFoEO},\lambda_{FeEO}^{FeFoEO},\lambda_{FeFoEO}^{FeFoEO} \quad (3)$$

It is clearly visible that the obtained 16 parameters provide a complete parameterization as there is a parameter belonging to each effect. Besides, the parameterization also has the properties of hierarchy and ordered decomposability.[5] In the following we shall examine the parameters appropriate to the four points of the modernization hypothesis λ_{FoO}^{FeFoEO}, λ_{FoE}^{FeFoE}, λ_{EO}^{FeFoEO} and the parameter λ_{FoO}^{FoO} not presented in the parameterization.

The maximum likelihood estimation of the model can be obtained with Wicher Bergsma's Mathematical routine[6].

Sample, Definition of the Variables

Several studies used already the same data (e.g. Bukodi 2001, 2003; Róbert and Bukodi, 2004). In order to be able to compare the results following the decision of Róbert and Bukodi (2004) the population examined was determined as those 20-69 years old working at the time of the survey or being unemployed but have worked in the past. 0.5 was added to the cells of the joint distribution in order to avoid empty cells. The sample sizes were as follows:

1983:	men – 9076 (2 empty cells),	women – 7834 (3 empty)
1992:	men – 7045 (2 empty),	women – 6364 (2 empty)
2000:	men – 2463 (no empty),	women – 2009 (5 empty)

During the analysis we used the weights originally assigned to the databases.

In order to counterbalance the relative complexity of the model when creating the variables we tried to limit the number of categories. We used *education* as a binary variable with different categories in the case of the father (completed secondary

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5   About the definitions of these and the implications of the characteristics see Bergsma and Rudas 2002.
6   The program can be downloaded from
    http://www.uvt.nl/faculteiten/fsw/organisatie/departementen/mto/software2.html.print.

school/not completed) and the respondent (with or without a degree), using different definitions in order to create variables with approximately similar distribution.

The questionnaires defined *Paternal occupation* as one he had when he was 14 years old. When defining the offspring's *occupation* it would have been better to use the respondent's first occupation but this information was not available in the database. In order to solve this problem Andorka (1995) attempts to examine young people separately where the "present" occupation is a good proxy to the career starter's occupation. For this purpose the present study examines the 20–29 age-group separately. When creating the occupational categories we used the triple classification fitting the EGP scale following the recommendation of Erikson and Goldthorpe (1992). The advantage of this, besides the low number of categories, is that as a result of ordinality a category jump defines vertical mobility.

1. upper class (service class: professional, managerial)

2. middle class (routine non-manual, self-employed, manual supervisor, skilled worker, self-employed farmer)

3. lower class (lower sales-service, semi-skilled worker, unskilled worker, farm labor).

RESULTS

According to the likelihood-ratio test statistics, the model in all three years to both genders is fits badly ($p < 0,01$), except for the year 2000 in the case of women where the model fits well ($p = 0,115$). That is the statement in (1) defining the model, that the conditional independence of father's education and offspring's education, cannot be accepted. Thus, the model was rejected and further on we used the version of the model in *Figure 2* also containing the Fe-O arrow. Regarding the parameterization it implies the parameters listed in (3) not to be fixed (free parameters).

The estimates of the four parameters relevant to our research questions can be found in *Table 1–4*. The upper value in the cells is a value for men, the lower for women. The value of all parameters is significant[7].

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7   Unless otherwise indicated we calculate with 0.05 significance level.

Table 1-4: Parameter Estimates

Year	Father's Occupation – Occupation Direct Effect λ_{FoO}^{FeFoEO}								
	Father								
	Upper class			Middle class			Lower class		
	Offspring								
	Upper class	Middle class	Lower class	Upper class	Middle class	Lower class	Upper class	Middle class	Lower class
1983	0.06	−0.14	0.08	0.04	0.12	−0.16	−0.10	−0.02	0.08
	0.36	−0.25	−0.11	−0.09	0.28	−0.19	−0.27	−0.03	0.3
1992	0.33	−0.13	−0.20	−0.02	0.17	−0.15	−0.31	−0.04	0.35
	0.33	−0.2	−0.13	−0.07	0.08	−0.01	−0.26	−0.12	0.14
2000	0.30	−0.20	−0.10	−0.11	0.31	−0.20	−0.19	−0.11	0.30
	0.15	−0.10	−0.05	−0.10	0.06	0.04	−0.05	0.04	0.01

Year	Father's Occupation – Occupation Direct Effect λ_{FeE}^{FeFoEO}					
	Father					
	Upper class		Upper class		Upper class	
	Offspring					
	with degree	without degree	with degree	without degree	with degree	vithout degree
1983	0.32	−0.05	−0.27	−0.32	0.05	0.27
	0.30	−0.13	−0.17	−0.30	0.13	0.17
1992	0.34	−0.06	−0.28	−0.34	0.06	0.28
	0.34	−0.09	−0.25	−0.34	0.09	0.25
2000	0.42	−0.13	−0.29	−0.42	0.13	0.29
	0.28	−0.07	−0.21	−0.28	0.07	0.21

Year	Education – Occupation Direct Effect λ_{EO}^{FeFoEO}					
	with degree			without degree		
	Upper class	Middle class	Lower class	Upper class	Middle class	Lower class
1983	1.19	−1.19	−0.28	0.28	−0.91	0.91
	1.28	−1.28	−0.43	0.43	−0.85	0.85
1992	1.35	−1.35	−0.40	0.4	−0.95	0.95
	1.15	−1.15	−0.40	0.4	−0.75	0.75
2000	0.92	−0.92	−0.31	0.31	−0.61	0.61
	1.01	−1.01	−0.19	0.19	−0.82	0.82

Year	Father's Occupation – Occupation Direct Effect λ_{FoO}^{FeO}								
	Father								
	Upper class			Middle class			Lower class		
	Offspring								
	Upper class	Middle class	Lower class	Upper class	Middle class	Lower class	Upper class	Middle class	Lower class
1983	0.72	–0.20	–0.52	–0.23	0.09	0.14	–0.49	0.11	0.38
	0.73	0.02	–0.75	–0.25	–0.05	0.30	–0.48	0.03	0.45
1992	0.79	–0.23	–0.56	–0.15	0.08	0.07	–0.64	0.15	0.49
	0.71	–0.06	–0.65	–0.17	0.02	0.15	–0.54	0.04	0.50
2000	0.95	–0.41	–0.54	–0.32	0.27	0.05	–0.63	0.14	0.49
	0.66	–0.03	–0.63	–0.23	0.05	0.18	–0.43	–0.02	0.45

Based on the test of significance of the effects' change:
  – Father's occupation – Occupation direct effect has not changed significantly in case of either genders,
  – Father's occupation – Education direct effect in the case of men between 1983 and 1992 has not changed significantly, but between 1992-200 (and also considering the total interval between 1983-200) increased significantly whereas in the case of women it has changed anywhere significantly,
  – Education – Occupation direct effect has not changed significantly either in the case of men or in the case of women, whereas
  – Father's occupation – Occupation total effect in case of men both between 1983–1992 and between 1992–2000 (and in the total interval of 1983–2000) changed significantly. Based on the significance test made separately for the changes of the individual parameters it can be said that this change was brought by the significant change of those parameters pointing towards the direction of closing. In case of women this change is significant only in the 1983–1992 interval. Here based on the detailed test it can be said that the chances of the offspring of fathers of middle class have changed significantly, namely to the direction of opening. However, there are no significant changes found neither between 1992 and 2000, nor between 1983–2000.

The 20-29 years old age group was examined separately, although thus the case numbers have dramatically decreased (in 2000 only 703 men and 530 women belonged to the sample) so the results should be interpreted cautiously. Results mainly show tendencies similar to those above, that are in the case of women unchanging inequality of opportunities and in the case of men along certain indicators already increasing inequalities. More explicitly stating the latter observation we found the strengthening association of father's occupation and son's education between 1983 and 1992, and the significant weakening of education-occupation effect between 1983 and 2000.

SUMMARY

According to our results (1) *education has a substantial role in achieving social status*, however this effect has not strengthened, what is more, in the case of young men it rather decreased. At the same time (2) although the total effect of father's occupation on the offspring's occupation was very strong for all three years for both genders, (3) the direct effect is much weaker but significant. Taking into account (4) that father's occupation has a strong effect on education, we can say that one part of social reproduction is realized through education, that is the *school can be regarded as an important channel of social reproduction*.

Results (1)–()–(4) all coincide with the classical observations regarding industrial societies, e.g. with the results of Blau and Duncan examining America in the middle of the past century belonging to the second generation of mobility researches and thus using the usual path analysis (Ganzeboom et al. 1991). At the same time Treiman and Yip (1989) comparing 21 countries from the beginning of the 70s found education independent from origin (as opposed to results (4)), thus arriving at the conclusion that occupational status is rather the function of education than of origin. In contrast a fresh international research based on English, French, Irish, Swedish and Dutch data found the effect of origin on status strong even adjusted for education (Breen and Luijkx 2004). In these countries, similarly to Hungary apart from education other important channels of social reproduction are presumed.

Based on our results the effect of *father's occupation on education* is significant in all three years, this corresponds to the Hungarian researches showing a strong effect of origin on school achievement (Andor and Liskó 2000; Róbert 2004). The increasing effect in the case of men and the unchanging effect in the case of women tally with the majority of Hungarian surveys mentioned in the Theoretical Background, Former Investigations part - although neither made with a completely similarly ofposed of question, nor the same interval and neither prepared with the same methodology. The work of Székelyi et al (1998) seems to contradict, they declared an increase in mobility, however, we have previously mentioned the possible problems regarding the comparison of the results.

Our possible explanations can be primarily linked to surveys (Mare, Boudon) denying optimistic expectations regarding the democratization of education. While these surveys emphasize the necessary failure of socio-political interventions aiming to simply increase the places in higher education, Hungarian authors also criticize the way of expansion, e.g. according to Gazsó (1997) public education policy also supports selective higher education strengthening the spontaneous macro-social processes.

Among the surveys mentioned in the Theoretical Background, Former Investigations part only Luijkx et al (1995) examined the direct effect of *father's occupation on occupation* adjusted for education in the given period by comparing data for men from 1973, 1983 and 1992-1993. Their approach – apart from the difference in the method of analysis – is different from that of the present essay that they did not adjust for father's education and examined the chances of upward or downward mobility separately. Regarding the effect of origin on upward mobility they

detected a U-shape curve, whereas an unchanging effect regarding downward mobility. Although taking into account the differences in methodology their results can be compared to the present one only cautiously, but it does not necessarily contradict our findings of unchanging mobility (upwards and downwards together) found between 1983 and 1992.

Similarly, only Luijkx et al deal with the *direct effect of education on occupation* adjusted for origin. Based on data from 1973, 1983 and 1992-1993 detected a U-shape curve regarding the effect of education on downward mobility, and experienced the unchanged effect of education on upward mobility, which again does not contradict our results (achieved by a different method), that is unchanged mobility in either direction between 1983-1992.

However, several studies deal among the previously cited ones with *father's occupation – occupation total effect*. Bukodi (2001) and (2003) uses mobility rate to answer the question, thus the two results cannot be directly compared[8]. The results of Róbert and Bukodi (2004) although achieved through different methods mainly support our experiences. Based on the "Undiff" model[9] (assuming uniformly changing mobility chances between two time-points, see Xie 1992)) comparing data for 1983, 1992 and 2000 they found traces of the slowing down of mobility-growth in case of women and traces of closing for men.

Regarding our results of the starting point of Treiman's hypothesis, the *functioning of the labor market*, we can cite Goldthorpe's systematic criticism (1996) regarding the meritocratic hypothesis. According to this it is *not necessarily efficiency* which operates labor allocation: education means a certain lifestyle, also cultural background so this is why employers seek employees with higher education and not for the real knowledge. In the *post-industrialist*, knowledge-based economy, however, it is not necessarily the cognitive abilities which come to the fore: in typical post-industrial areas in expansion like trade, PR or promotion it is rather appearance and style of speech which get a great role. These, on the other hand, are inherited from the family and cannot be achieved through education. The situation is quite similar in the small and medium-size enterprise sector increasing in modern societies: parents can pass on not only actual goods but also the necessary entrepreneurial culture and individualistic working morale.

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8   That is the mobility rate – as opposed to the log-linear parameters used here – can react with a change to the effect of change simply of the marginals of the table that is to the effect of change of the structure.

9   Firth (2005) mentions the problem that the parameters of the Unidiff model (as opposed to the log-linear models) do not have the feature of independence from marginal changes. Thus, in the case of an ill-fitting model there is a risk that the changes of the mobility chances provided by the model are caused by structural changes themselves (in the research of Robert and Bukodi although the Unidiff model explained the date correctly according to the dissimilarity index, but was ill-fitting considering the likelihood-ratio statistics). Although it does not belong strictly to the subject of the present paper but we should mention that the sensitivity of Robert' and Bukodi's (2004) results to the changes of marginals was examined and according to our experiences they seemed stable. Based on a consultation with David Firth this sensitivity test was conducted in the following way: the marginals of the three tables belonging to the three years were homogenized while fixing the local odds ratios with the help of the iterative proportional fitting algorithm and then the fitting of the Unidiff model was repeated.

Summarizing the above: during the period examined tendencies contradicting the hypothesis of Treiman (in the case of men the increase of certain inequalities) or at least tendencies not supporting it (unchanging inequalities) can be detected in Hungary. That is considering this time span from the two private opinions cited in the motto the pessimistic one can be supported empirically. The influence of parental background on son's education has been continuously increasing, what is more the origin circumventing the educational system influences the status achieved also through other channels. Meanwhile the labor market value of a diploma, that is its role in achievement of status contrary to the hypothesis is not increasing, in the case of young people it is rather decreasing.

Referring to the reaction time-problem mentioned in the introduction, it is of course possible that the time passed between the transition period and the time of the research is too short for real mapping of economic/political changes, although the present processes make it quite unlikely the appearance of a tendency contrary to that presented here. For example based on researches showing the increase of inequality detectable in the performance in primary school (Kertesi and Kézdi 2004) it is rather possible to forecast the carrying over of this into higher education. Time will answer this question, but, this might not be the only reason for further research. We are planning to extend the research to further East-European countries (as Hungary's social structure before 1989 can be regarded as unique from several aspects within the East-European block) and to non-socialist countries representing an individual welfare system and occupational structure like Holland, Great Britain, Italy or the United States.

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