

Social Genealogies and Family Histories

An example of using statistical methods for researching social mobility in social genealogies with family histories

Alenka Brešar¹

Abstract

In the first part of the article the method of social genealogies with family histories is briefly described. This method is applied to the study of social mobility (professional and spatial). Until now social genealogies and family histories were analyzed exclusively by qualitative methods. In this work social genealogies are analyzed with quantitative methods in two ways: analyzing genealogical graphs and choosing typical family histories.

1 Introduction

The method of using social genealogies with family histories is one of the derivations of the biographical approach in the social sciences. This method was developed by French sociologist Daniel Bertaux. Bertaux (1991) suggests that a family core is constituted by its social genealogy. Social genealogy is a tree which represents family relationships (kinship network) at least for three generations.

In this piece of work the following criteria for included units is used: we start to draw a diagram with a certain person from the third generation who we call ego, after that we include his/her parents and their sisters/brothers with partners (the second generation), in the first generation we have both pairs of ego's grandparents and parents of ego's uncles'/aunt's partners. For each person in the diagram we also collect some data such as year of birth, year of marriage, educational level, career, and so on. It could be said that this data could also be gathered with a standardized questionnaire administered to the three generations, but there is at least one important difference: the data in social genealogy are placed in a context, at least in terms of a family context.

Even so simple aiagram will bring out a number of phenomena: for example, the differentiation of a sibling's trajectories or the transmission of trades between

¹ Faculty of Social Sciences, University of Ljubljana, P.O. Box 47, 61109 Ljubljana, Slovenia

generations. But social genealogy, far from providing a complete representation of family history, is no more than a starting point. In social genealogy the desire to answer the question, why did things take place exactly as they did and not any other way?, is built in. The aim of gathering family histories is to understand the processes which contribute to the construction of the social trajectories of their members. From a social genealogical diagram we pick up one or two nuclear families. We write their family history in a way that exposes some key processes which co-shaped it. Bertaux (1992) suggests that we analyze family histories in two steps:

1. analyze each family history separately
2. analyze families with similar social backgrounds - paying special attention to the processes which differentiate social trajectories.

2 Description of empirical material and database

In this research 100 social genealogies with family histories are included. They are randomly chosen from 347 social genealogies with family histories gathered from students in the first year in the Faculty of Social Sciences at University of Ljubljana. Data was gathered in 1992/93.

Only individuals from the second and the first generation whose family of orientation is complete are included in the database (ego's grandparents and their children). Using this criteria the sample contains 1026 individuals, 398 members of the first generation (199 male and 199 female) and 627 members of the second generation (318 male and 309 female).

The database is compiled with regards to data from genealogical graphs and the hypothesis which are described later. It involves the following variables (* - variable is nominal):

- number of schooling years (1 to 17, 17 means 17 or more);
- level of education (1 - university, 2 - vocational or secondary school, 3 - primary school or less);
- * the last profession, the last profession of mother, the last profession of father (classification as outlined by Antončič (1989), apart from housekeepers who are in a different group);
- professional mobility (1 - change of profession at least two times, 2 - change of profession once, 3 - no changes in profession) Only vertical mobility is considered.

- professional mobility of parents (1 - at least one of the parents changed profession at least two times, 2 - at least one of the parents changed profession once, 3 - none of the parents changed profession);
- spatial mobility (1 - change of permanent locality at least twice, 2 - change of permanent locality once, 3 - no changes of permanent locality);
- spatial mobility of parents (1 - at least one of the parents changed permanent locality at least twice, 2 - at least one of the parents changed place of permanent locality once, 3 - no changes of permanent locality);
- number of children (1 to 9; 9 means 9 or more);
- year of birth;
- * generation (1 - unit belongs to the first generation, 2 - unit belongs to the second generation);
- * gender (1 - female, 2 - male);
- * identification number of family (1 to 100; units of the same genealogical graph have the same identification number).

3 Analyses of genealogical graphs

The hypotheses were made with regards to information from available genealogical graphs and the results of empirical research about social mobility processes in Slovenia. Each hypothesis was tested by several statistical methods.

3.1 Hypotheses involving professional mobility

Hypotheses about professional mobility are mainly founded on the research done by Štebe (1991). He discovered systematical long-term trend in the direction of opening society with the combination of the data from two research. Although, he studied intergenerational mobility, opening society also can be reflected in intragenerational mobility. Namely, more open society should offer more possibilities for individual career. Despite his analyses included former Yugoslavia, the following was assumed:

- *Professional mobility in the first generation is lower than professional obility in the second generation.*
The analysis on the data from genealogical graphs shows that the null hypotheses that the arithmetic means of professional mobility of the first and the second generation are equal cannot be rejected ($t=-0.85$, $p=0.397$).
- *There exists a difference in professional mobility between males and emales, but this difference is lower in the second generation.*

T-test for each generation suggests that the first part of hypotheses is true (the first generation: $t=2.84$, $p=0.005$; the second generation: $t=3.05$, $p=0.002$). But the influence of generation on this difference is very small. Analysis of variance shows (gender difference in professional mobility was controlled by the variable generation) that gender influences professional mobility statistically significant ($p=0.000$) and generation not ($p=0.409$). With the variable gender 0.017 of professional mobility variance ($\eta^2=0.13$) is explained, while with the variable generation only 0.0009 ($\eta^2=0.03$) of professional mobility variance is explained.

- *Children with professional mobile parents are more professionally mobile than children with professional non-mobile parents.*

Correlation coefficient (0.24) shows that there is a connection between the variable professional mobility of parents and the variable professional mobility of children. Also chi-square is statistically significant ($\chi^2=48.46$, $p=0.000$).

- *Children of unemployed mothers are less professionally mobile than children of employed mothers.*

The difference between arithmetic means of professional mobility of children with employed mothers and of children with unemployed mothers is not statistically significant ($t=-0.31$, $p=0.755$). The same suggests chi-square ($\chi^2=0.10$, $p=0.951$). Because I actually tried to discover influence of un/employment of mothers on children's ambitions, I also tested the link between the (un)employment of mother and the years of child's schooling. T-test shows that children of employed mothers are better educated ($t=5.66$, $p=0.000$).

3.2 Hypothesis involving spatial mobility

Industrialization and with it related urbanization were only at the beginning during the First and the Second World War, industrialization started to expand after the end of the Second World War in Slovenia. Regarding that industrialization accelerated migration processes the following hypothesis was made:

- *The units of the first generation are spatially less mobile than units of the second generation.*

T-test shows that difference of arithmetic means are statistically significant ($t=-2.68$, $p=0.008$), but the arithmetic mean of spatial mobility is lower in the first generation (2.13) than in the second generation (2.26). In other words, the units of the first generation are spatially more mobile. The differences are the

biggest when moving twice or more (29.6% units of the first generation and 20.0% units of the second generation moved twice or more). Analyses of variance shows statistically significant effects of generation ($p=0.008$), but the share of explained variance of spatial mobility by generation is relatively low ($\eta^2=0.08$, $\eta^2=0.0064$).

Novak (1991) establishes that higher social origin assures spatial unmobility, because it offers easier access to promotion channels in home place. Therefore the following was assumed:

- *Units with higher social origin are spatially less mobile than units from lower social origins.*

Novak took as a social origin working status of parents. Therefore I tested the influence of mother's and father's profession on spatial mobility of children. In both cases the influence of social origin was statistically significant - mother's profession: $\chi^2=37.39$, $p=0.001$, father's profession: $\chi^2=25.34$, $p=0.001$.

Table 1: The results of chi-square test for professional status and spatial mobility

Professional status	% of spatially non-mobile
Managers, professionals	34.4
Officials	41.5
Technicians, ...	50.3
Housekeepers	55.6
Farmers	85.0
Chi-square	30.2
p	0.000

Courgeau (1985; 159) ascertains that higher educational levels and professional status result in higher spatial mobility. He links mobility levels with a spatial dimension of work. On this basis the next two hypotheses were made:

- *Units with a higher professional status are spatially more mobile than units with a lower professional status.*
- *Units with higher education are more spatially mobile than units with lower education.*

Since Courgeau states that his results are not necessarily true for older generations, the last two hypotheses were tested only for the second generation. The results of chi-square test are shown in Table 1 (for the variable professional status) and Table 2 (for the variable education). It can be seen that higher is professional status and higher is education more spatially mobile units are.

Table 2: The results of chi-square test for educational level and spatial mobility

Education	% of spatially non-mobile
University	34.2
Secondary school	49.0
Primary school or less	53.6
Chi-square	22.07
p	0.000

3.3 Summary

Let me briefly summarize the results of the social genealogies analysis:

- Units of the first generation are spatially more mobile than the units from the second generation, they have lower professional status and level of education.
- Women have on average a lower level of education, lower occupational status and they are less professionally mobile than men.
- Professionally mobile units are also more spatially mobile and they have higher professional status than professionally non-mobile units; in the second generation the professionally mobile units are also spatially more mobile and their parents are professionally more mobile than parents of professionally non-mobile units.
- Units who are spatially more mobile have higher professional status, they are more professionally mobile and they have a higher educational level; in the second generation spatially more mobile units also have higher level of education, they are more professionally mobile, they have a better occupational status, and their parents are more spatially mobile.

We can notice that there are relations between spatial mobility, years of schooling, and professional status (and also a connection between the professional mobility and professional mobility of parents, and a connection between the spatial

mobility and the spatial mobility of parents). More details concerning statistical analysis (especially discriminant analysis) are given in Brešar (1993).

4 Analyses of family histories

The results of the comparison of professional and spatial mobility between generations were unexpected. These can be explained considering sociological theory, the socio-historical context, and above all, with the analysis of family histories. Reading of all 100 family histories was not necessary for my purpose, because I was interested only in background information relating to certain (opened/unanswered) research problems (arising from the results of testing the hypotheses). So only some of the family histories were chosen with the combination of the following three procedures:

- Classification of units. With the leader method I classified units into three groups regarding the following variables: professional mobility, spatial mobility, years of schooling and profession. Results in Table 3 include average values in each group. Values of each variable are in brackets. Numbers in brackets in the bottom line are: the first number is the number of units in the first generation, the second number means number of units from the second generation.

Table 3: Average group characteristics

variable	group 1	group 2	group 3
spatial mobility (1-3)	2.45	1.88	2.17
professional mobility (1-3)	2.94	1.82	3
years of schooling (1-17)	6.45	10.88	12.41
profession (1-6)	4.68	2.54	2.09
numbers of units	330 (215+115)	206 (79+127)	466 (95+371)

I choose some typical families, representatives from each of the groups - those, in which all members of the same generation are classified in the same group.

- Questions about the differences between generations in relation to spatial mobility emerged in that the second generation was less spatially mobile than the first one. Furthermore, in relation to professional mobility there was no significant differences between generations in the sample. For this reason I choose those social genealogies with family histories in which the

average value of spatial mobility was higher in the first generation than in the second generation. To analyse the factors which influence professional mobility also those social genealogies were chosen where the average value of professional mobility was high and approximately the same in the first and the second generation.

- Selection for more detailed analysis. During the transfer of data from the social genealogies to the database I marked those social genealogies, whose family histories could add to understanding the process of social mobility.

With described procedures, 47 family histories were chosen. Mostly they started with description of ego's grandparents' childhood. This allows for the inclusion of greatgrandparents also. The family histories finished with the description of ego's childhood. I extracted some conclusions which should be viewed with caution; we can use them only to elucidate some of the processes and for further research. In the analysis of family histories, two topics are discussed: spatial mobility and professional mobility.

4.1 Spatial mobility

Motives for moving are usually mixed but in most cases the reason for moving is connected with occupation:

- Because of poverty resulting from the loss of the parents in earlier years, economic crises in 30s resulted in the destruction of farms, small farms on which only the oldest son can stay, etc. People are forced to leave their native village and search for a job at nearby farms as a stableman or maid or to get a job in a factory or serve an apprenticeship with an artisan.
- Opportunity for a better occupational status in another town (better working conditions, better paid job, more professional job, etc.).
- The nature of the job itself which demands constant moving (military service for example).

Other reasons identified in family histories are:

- Housing
Lack of housing resulting from the burning of villages during the Second World War; large families in small apartments moving to places with more appropriate apartments or building their own house. One reason for moving occurred after the abolition of the A and B zones in the Slovene littoral, when officers no longer needed there left and made apartments available. The opportunity to get an apartment and job could also be related: for example, apartments for workers owned by firms. Furthermore connections

between marriage and spatial mobility are not very rare - when a family increases in size, the need arises for a bigger or separate apartment.

- Starting of family

When partners are not from the same place, one of them moves to the residence of the other - usually wife to husband, since he usually has higher income. Indirectly there is also the influence of partner's employment. Employment has also a direct influence - the need to take care of ones own family, marriage and need for apartment are often interlinked causes.

- Inheritance of property. Actually this is not the reason for emigration but it could be an important factor of immigration.
- The wish for education. Also in this case this is a factor of immigration - when other conditions are fulfilled this is a pull factor which is extremely subjective.

One of the differences between the first and the second generation regarding the reasons for migrations that the major reason among units of the second generation is the search for a job. Within this, the opportunities for better occupational status predominate above all else. In the first generation, the spectrum of reasons for migrations is broader and furthermore, in relation to employment, the units search for a job to satisfy basic existential needs (with very limited possibilities to choose a post). The majority of units in the first generation are forced to migrate, but for the second generation the picture is different - they have a wider possibility of choice.

In the stories we also get a partial explanation of why spatial mobility in the second generation is lower than spatial mobility in the first generation . Namely the first big migration wave in Slovenia involved migrations from rural to urban areas - the process of depopulation of villages (before and after the Second World War) - but this process is already at its end by the time units of the second generation are becoming independent from their parents. In urban centers there no longer is such an influx from the countryside (the arithmetic mean of the year of birth of the second generation is 1944 - they are starting to get jobs during the period from 1950 - 1970). Besides this, the majority of the units in the second generation live from childhood in (or in the vicinity of) urban centers because their parents have already moved there.

4.2 Professional mobility

Before the Second World War there is actually very little professional mobility - in the most cases before the Second World War there are shifts from stablemen toward carpenters, coalminers, etc. For women there is mostly downward mobility - after marriage, women usually stay at home. After the Second World War when

industrialization was in full expansion and the political system still very powerful, there was more professional mobility, because the needs for workers were big. At this time, there was a lack of educated people. With short-term additional education (such as different courses) and with becoming a member of the Communist Party, it was not hard to significantly improve ones social status and working position. In the second generation there is a noticeably higher emphasis on education. In most cases the main channel of upward professional mobility in the second generation is education combined with work.

5 Instead of conclusion

The method of social genealogies with family histories is still relatively a new one. There are no clear guidelines for all the procedures to be used, and it is up to the users themselves to take decisions. For this reason I would like to mention some things which I did not use but which could be useful. For example, apart from the data we collected in social genealogies we could also collect the year of changing profession and/or place of living - this would be helpful to test whether change of profession temporally coincided with change of living place, or the impact of marriage on professional mobility, etc. Also a changed definition of units in the social genealogy might be more useful when comparing or tracking mobility of the families in the first generation through social genealogies. Instead of parents of ego's uncle's and aunt's partners it would be better to include all ego's grandparents' sisters and brothers. In this way we would get complete grandparents' orientation families.

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