THE SPATIAL STRUCTURE OF ETHNIC DISTRIBUTION IN REGIONS WITH MIXED POPULATION

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– Summary –

1. The aims of research project and the conducted researches

The research project, elaborated at the beginning of my PhD studies, had been changed at some points during the research work. The reasons for these changes are mainly new experiences obtained during my PhD studies. In the focus of my interest are the geographical methods suitable to analyse and describe the spatial structures of different phenomena.

Nobody disputed yet, that one possible direction of the progress in ethnic geography is developing new methods, applications and the theoretical background of the analysis focusing on spatial structures. All these new approaches need to be taken into the framework of traditional ethnic geographical researches. Therefore, the central issue of this research is to test the usefulness of some of these methods in the realm of ethnic geography. Our hypothesis was that it was possible to show the applicability of these methods by concrete examples investigated by this research.

During the research first of all methods which seemed to be relevant for revealing the internal ethnic structures of regions were searched and applied for my research area.

2. Language border, ethnic blocks

Language border can be mapped only in those cases, where the predominance of one ethnic group is sharply distinct. If it is not the case, only the contact zones of languages can be approximately determined. Therefore, language border can be clearly determined only by special form of spatial structure, by the ethnic blocks.

Ethnic block is a micro-region, or a given group of settlements. Settlements belonging to these blocks are connected by
roads and networks of social structures. The distribution of population according to nationality is in every settlement of this block similar; predominance of a concrete ethnic group is considerable.

The main “characteristic” of an ethnic block is the influence by spatial structures, which depends on processes leading to assimilation of certain ethnic groups. Ethnic blocks are the strongest protection against assimilation of minority groups.

3. The Léva (Levice) district
The research area is the Léva district, in the southern edge of Slovakia. This administrative unit – containing 83 settlements in 1991 – was formed in 1960. It is a transitional region towards the south-eastern peripheries of country.

The area of Léva district is divided into three little administrative regions.

The first micro-region, the actual zone of influence of the town Léva is located in the northern part of the district. It is characterised by settlements with strong dominance of Slovak ethnic groups. Hungarian minorities live only in little villages near the southern borders of this region. The micro-region is economically well developed, the country’s second nuclear power station can be found in Mochovce. The industry of the district is concentrated mainly into towns like Léva and Tolmács (Tlmače).

Town Zselíz (Želiezovce) and its zone of attraction constitutes the second micro-region. The micro-region is located in the central part of Léva district. Settlements of the region have mixed population according to nationality, with a weak dominance of Hungarian ethnic groups in villages at the southern part of the region. Economically it is an underdeveloped region. Industry, concentrated in Zselíz, have difficulties with a lot of structural problems and the agriculture of the region faces also great problems.

The third micro-region is the town Ipolyság (Šahy) and its zone of influence, which is located along the Hungarian-Slovakian
border-strip. Settlements of this region can be characterised mainly by the predominance of Hungarian ethnic groups. The economy of the region is least developed in the Léva district.

4. The population censuses

During the research work data form the following censuses were analysed: 1880, 1890, 1900, 1910, 1970, 1980, 1991. All the censuses before 1970 contains data about the distribution of the population by mother tongue. The analysis of data was concentrated on three categories. Among categories of Hungarians and Slovaks, all other native languages or nationalities were classified as Others.

5. Classification of settlements on basis of population distribution by nationalities

On the basis of the distribution and proportion of a given nationality, settlements could be classified into three distinct groups:

The ethnic group plays an absolute dominant role in the population of the settlement. Its majority is not questionable.

There are two or more ethnic groups living in a given settlement, and none of these have a significant majority. Therefore, the population of such settlements is mixed, there are lot of languages used by the inhabitants.

No or only very few members of a given ethnic group are present in the population of the settlement.

7. The research’s hypothesis

During the period (1880-1991) covered in my research, the principal change in the ethnic spatial structure of the investigated area was that language border, sooner sharply outlined, started to disappear. From the viewpoint of spatial structures these processes could be interpreted as developing of a new spatial element; the region of settlements with mixed population.

This mixed region was created after World War II, as result of, so called “population transfer”, when more than 10 000
Hungarian inhabitants of several settlements of district were “changed” for Slovaks from south-eastern parts of Hungary. These settlements are located mainly in central part of district. The mixed region, like a wedge – located among banks of river Garam (Hron) – deals the area of former Hungarian ethnic block in two parts.

The hypothesis of research is based on results of assimilation processes. The most important changes in the spatial structure of distribution of nationalities in Léva district after 1970 led to sharper delimitation of different ethnic zones. It means that Slovak and Hungarian blocks are stronger than before 1970. The language border is not “invisible” anymore, and therefore, if we choose the suitable methods, it can be mapped.

8. The applied methods

The methods, applied by this research were:
Index of dissimilarity or Hoover-index
“Weight analysis”
Potential analysis
Neighbourhood-index
Trend surface analysis

The most important aim of this research was the interpretation of results of applied methods, according to the viewpoints of regional studies.


All these methods are based mainly on calculation of averages. Some of them are based on methods used in physics. The results of methods are models of distribution of ethnic groups according to either real or calculated proportions in the investigated area.

The index of dissimilarity compares two studied phenomena in all points of the investigated area. The characteristic feature of distribution of the two nationalities is revealed by the results of this method
The “weight analysis” is based on analogues used in physics. It works with the distribution of different “weights”. The weights in this research were the proportions of ethnic groups in settlements of Léva district.

The potential analysis is also based on a physical analogue. The analysis models the effects of all of the investigated points (settlements) of the research area according to the distances between them.

The trend surface analysis is based on the effects of all of the investigated points of the research area according to their position.

The results of applied methods were represented and interpreted, if it was possible, on maps of ethnic distribution. The most “geographical” results are given by the weight and the trend surface analyses.

The main conclusion of this research is, that the answers that have been given by these applied methods to questions raised in the hypothesis of spatial distribution, are clear and their interpretation is not difficult.