

Theses of a PhD dissertation

A model based study of toponym systems

A statistical approach to the comparative analysis of toponym patterns

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1. Delineation of the topic and objectives of the dissertation

Territorial differences in toponym systems, to be identified mainly in the structure of microtoponyms, were examined rarely and only as a secondary concern by toponomastics researchers, although toponomastics has for long been characterized by efforts to describe the features of a certain municipality or region, i.e. the aspects of spatiality. The topic and the objectives of my dissertation are to try to resolve this controversy and thus apply a multilateral approach regarding the question whether there are boundaries for phenomena in toponym systems or onomastic dialects summarizing them.

I consider boundaries for phenomena in onomastics as the territorial diffusion of toponym structures, and toponym-giving models. I chose to present them on the map in order to define them since the mapping of frequency indicators of toponym structures by municipality is expected to result in the diffusion lines of the examined toponym structures, i.e. the boundaries for phenomena. In close connection to this, onomastic dialects are toponym-geographical areas with specific differences and similarities, i.e. the entirety of the boundaries for phenomena and certain phenomenon clusters.

Diffusion boundaries of certain toponym structures and, based on these, the spatial features and expansion of certain onomastic dialects, just like in dialects, are influenced by several circumstances in combination. These include the geographical environment, foreign language influences, migration, etc. In my dissertation, I will examine these three factors closely and in detail and will try to find the non-linguistic drives for the diffusion of toponym structure phenomenon. As a result of the examinations, I will also try to define territories in the area of a county which has uniform toponym-giving features to a certain extent, i.e. can be characterized as onomastic dialects.

2. Methods and aspects of the processing work

1. My dissertation uses the category system and notions of two typologies or theoretical frameworks for the name taxonomy research. The name taxonomy research was based on the functional-semantic and lexical-morphological analysis of names. In my work, this analysis was supported by the toponym examination model as devised by István Hoffmann. However, in issues where language contact phenomena were also concerned in the taxonomy research, I used the aspects and categories of the analysis model created specifically for this purpose by Rita Póczos. This dual background is explained by the fact that the general toponym analysis model is suitable for comparing the toponym systems of name using communities of different languages since its system-describing notions are universal, however, as regards language tools used in the creation of toponyms, other aspects have to be added to it in some respects of contact research. Following these additions, the toponym-analysis framework is suitable to fully satisfy demands of interference phenomena. This addition of special language categories was done by Rita Póczos and I myself relied on it as regards certain examinations.

The linguistic analysis based on the above models of toponyms and toponym systems provides us with information about the frequency of certain toponym structures in each municipality. However, as regards the objectives of my dissertation, I aim to go beyond this since my primary concern is to find further arguments and aspects proving the existence of boundaries for phenomena and onomastic dialects. It also demands for further innovations in methodology and that is why I introduced the methods of comparative mathematical statistics into toponym taxonomy examinations. This method uses frequency indicators derived from the structural analysis of toponyms and frequency tables created from these.

2. The method of mathematical statistics has proven effective in several examinations. On the one hand, I researched the expansion of certain toponym structures with this method, by a comparative analysis by municipality. In this research, my objective was to map the frequency indicators of a toponym structure in a given function to present the geographical objects limiting the expansion of certain phenomena. This method allowed for the depiction of boundaries for phenomena.

The other possible research method may allow for defining onomastic dialect areas. This necessitates the application of matrix based methods as the expansion lines of toponym structures would not coincide. The matrix based method provides for the comparison of frequency data for several features and toponym structures at the same time. In my research work, I used the Bray–Curtis model adapted for this work, and it proved very useful for the comparison of name systems as well. This comparative method was devised by J.

Roger Bray and John T. Curtis in 1957. The essence is that a similarity matrix is created based on the frequency of each phenomenon where the established similarity degree has values between 0 and 1. The lesser the similarity is, the closer the value shall be to 0. Convergence to 1 means that two phenomena are the more similar to each other. For comparison, I used the statistics program “R”.

3. As regards methodology issues, the creation principles of the toponym corpus of my examinations need first to be described. My driving work hypothesis was that toponym-giving patterns of regions which lie far from each other will possibly differ due to different landscape, cultural and other linguistic and non-linguistic influences. For proving this hypothesis, I examined the toponym-giving patterns of different regions of the Hungarian-speaking area. During my research, I analysed more than 2,300 micronyms from Felcsík, three municipalities of the Fehérgyarmat and three ones of the Veszprém microregion. The names were uploaded into a database.

Besides the differences in the geographical environment, I was also motivated to find out more on the possible effects of migration processes on toponym systems. Since this aspect required another type of material, I used the toponyms of three Tolna municipalities—Izmény, Kakasd and Bonyhád—based on “Tolna megye földrajzi nevei” (Geographical names of Tolna county) for the chapter on the links between migration and toponym systems. Following the second World War, Tolna county saw the settlement of Székely people from Bukovina, and my work hypothesis was that the new Székely population may have brought its own name patterns to give names in the new environment according to its own name-giving habits.

Another important problem is identified by my dissertation concerning the possible influences of a foreign language environment on contacting name systems. This issue was examined based on the toponyms of villages and towns of the Vend region in Vas county which is inhabited by German, Vend/Slovenian and Hungarian speaking people and it is highly possible that their name patterns may have influenced each other. Therefore I examined the multilingual name systems of the Vend region in this analysis.

In my entire research work I have used as basis the bulk of the toponym corpus from “Vas megye földrajzi nevei” (Geographical names of Vas county). I examined the toponyms of 135 municipalities from Vas county aiming at proving the territorial differentiation of toponym systems. I had a double aim in creating my database. On the one hand, I wanted to see whether name-giving patterns show differences in a larger uniform area. On the other hand, it was also evident that analyses should be done by municipality since this is the way we can get a real impression on the expansion of a given toponym structure. Besides, Vas county proved an ideal choice in several respects, partly because it is extremely articulated geographically, and also because it consists of several ethnographical and dialect regions. So my hypothesis was that a certain area which presents significant linguistic, geographical, and cultural differences shall very possibly present onomastic differences as well.

In order to have all the examination aspects described above covered, my toponym corpus for the analysis contains approx. 12,000 contemporary toponyms.

3. New scientific results of the dissertation

Results of my dissertation are shortly presented in the order of the main chapters.

3.1. Geographical factors affecting the expansion of toponym systems

The role of the geographical factor in the expansion of name systems was proven by examining the microtoponym system of three areas which are well separated from each other. Name systems of these areas show significant differences on the lexical and morphological level. In this regard, the microtoponym system of Felcsík presents important differences in comparison with the name pattern of the other two regions in Hungary. The majority of such differences is of the morphological kind but it is self-evident that there are major differences also on the lexical level between the name systems of each region.

Some expressive examples may illustrate the above well. A very striking difference was the usage of the -é possessive suffix in toponyms relating to possession as regards the issue of markedness (*Antalé, Kopaszé*). Such a suffix is important primarily in the microtoponym system of Felcsík, however, there are related data in the Fehérgyarmat microregion as well. However, the names of Veszprém municipalities I examined did

not present such a name structure pattern. Another characteristic feature was the presence of adverbial suffixes in toponyms. In Felcsík, this structure was very frequent and thus evidently a part of the name pattern (*Katinnál, Gátnál*), but I could not find such structures in regions in Hungary I examined.

In order to prove the role of the geographical environment influencing the territorial expansion of toponym-giving patterns and toponym structures, I then chose the uniform area of a county as the basis of the analysis. Toponyms of Vas county, as already indicated in the methodology unit, may prove ideal for such an examination because these are highly fragmented both geographically and culturally, linguistically and also from the aspect of dialects. Comparative examinations were made by municipality and the resulting comparative analysis highlighted the influence on the spatial expansion of toponym structures (i.e. serving as barriers) as exerted by the river Rába, the Marcal basin, the Gyöngyös plane, the Őrség and the Kemeneshát. Such geographical objects behave as barriers and determine the territorial characteristics of toponym structures, i.e. the extent of the expansion of these.

For example, possession may be expressed by name users with several toponym structures, including the personal name + geographical common name (*Simon-tag*), and the common noun denoting persons + geographical common name (*Tanító-földek*) structures. Examinations proved that the first method is preferred rather in areas beyond the Rába while the second method is more frequent in municipalities on this side of the Rába.

While the above example shows that the river Rába is a barrier, the usage of appellative toponyms (*Gecemán, Kis-Métnek, Nagy-Máncso*) is restricted by the Marcal basin. In this area, there are far less toponym structures of this kind than in other areas of Vas county.

Another example is the Őrség where postpositions relating to position and also the structures denoting a relationship (*Tóti fölötti dűlő, Kis-hegy mellett*) are present in a larger proportion than in other parts of Vas county.

3.2. Migration factor influencing differences of toponym systems

Apart from the influence of the geographical environment on the expansion of toponym systems, migration and, consequently, the mingling of toponym patterns of different regions is equally important. When comparing the toponym systems of the three Tolna county municipalities, Bonyhád, Kakasd and Izmény, my hypothesis was that name patterns of the settled-in Székely people and the original inhabitants of Tolna county may be different and the two (or actually, six) contacting name systems naturally had a cross-influence on one another as a result of general characteristics of name-giving and name usage. My examinations succeeded in repeatedly proving this hypothesis on the level of several toponym structures.

The most significant difference between the two (i.e. the settled-in Székely and the native Tolna) name systems were found in the territory of markedness. While unmarked toponym structures were mostly preferred in Tolna (e.g., *Rác-gödör*), the Székely name-giving pattern contained marked structures, especially ones where the posterior constituent contained a possessive suffix (e.g., *Kerekes dűlője*). Further major differences were found in the expression forms of possession circumstances: toponym structures with a common noun as anterior constituent relating to persons (e.g., *Pap-hegy, Tanító-földek*) were frequent in the name-giving habits of native Tolna inhabitants while the Tolna Székely name patterns preferred rather those with a personal name as anterior constituent (e.g., *Albert Zoli-féle föld, Truca-tanya*).

In addition, I registered a number of other differences in the name systems. It is presumed that such differences are related to the toponym patterns of the settled-in Székely people. Following their settlement, Székely people seemingly tended to keep their name models and created their new names in the Tolna municipalities I examined.

3.3. The influence of the foreign language environment on differences of toponym systems

It is evident that toponym-giving patterns and toponym structures of different languages differ. The co-habiting communities speaking different languages must have had a cross-influence on the toponym-giving habits of one another as well. In order to prove this, I have analysed the Hungarian, Vend/Slovene, and (to a lesser part) German toponyms of the municipalities of the Vend region in Vas county. The comparison led to the conclusion that within the Vend region, the mutual influence of toponym systems of different languages

is rather little, and the two name systems which were more important in the analysis (Hungarian and Vend/Slovene) show very little similarity in their toponym structures. For example, a major part of the Slovenian toponyms consists of single-constituent toponyms which is not characteristic of Hungarian toponyms at all. Another significant difference is the usage of the anterior constituent which is a personal name or a common noun relating to a person to express possession. While the Hungarian name system prefers personal names in this role, the occurrence of the two structures is more balanced in the Slovenian name system. It can thus be concluded that names systems in the Vend region influence each other mainly on the lexical level while this is far less characteristic of morphological tools and solutions.

3.4. Problems and methodology of describing regions with an onomastic dialect

As already mentioned when describing my methodology, toponym systems of municipalities in Vas county were compared using the Bray–Curtis matrix based comparison model, thus drawing the similarity patterns of the municipalities. Mapping the data, I found that territories of onomastic dialects in the region are arranged in East-West oriented zones and there are four major territories of onomastic dialects within the county (Gyöngyös plane, Marcal basin, Kemeneshát, and the Órség).

However, the statistical methods used in the relevant chapter and the matrix based comparative model has to be refined in several points, as mentioned in the summary of my dissertation. Sampling, ways of mapping and the arrangement of the matrix has to be reconsidered and examined further.

As regards sampling, my dissertation uses the number of names in the periphery of municipalities and the representative pattern was outlined according to this data. Although this solution proved effective, it might be worth considering name density instead of name quantity when choosing municipalities to be analysed.

When drawing boundaries for phenomena, i.e. defining the territorial expansion of toponym structures, differences between phenomena were registered generally in 10 per cent or, when needed, in 5 per cent steps. In this regard, it is an important aspect to determine the appropriate and optimal number of steps which will yield the best results and will show the most realistic, i.e. the most significant difference between toponym structures.

Matrix based examinations are an informative and appropriate method for comparing phenomena. However, in order to define territories of onomastic dialects more precisely, we need to develop a comparative statistical method which should be a model focusing on and created specifically for name systems, although it should be similar in some respects to the matrix based method presented here. In order to eliminate weaknesses in the present methodology, the usage of weighting factors and ranks as in statistics should be considered since they might provide us with a more precise view on the territorial characteristics of onomastic dialects.

Finally, it should be noted that statements about onomastic dialects in this dissertation may be projected to the entire name system only after processing the complete stock of Hungarian toponyms. My efforts in this paper are merely aimed at presenting a possible methodology to be used in such an ambitious work.

4. Publications in the topic of the dissertation



Registry number: DEENK/116/2015.PL
Subject: Ph.D. List of Publications

Candidate: Eszter Ditrői
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List of publications related to the dissertation

Hungarian scientific article(s) in Hungarian journal(s) (7)

1. **Ditrői E.:** A migráció hatása a helynévmintákra: Tolna megyei esettanulmány.
Magy. Nyelvjár. 51, 111-128, 2013. ISSN: 0541-9298.
2. **Ditrői E.:** Nyelvi érintkezések hatása a helynévmintákra: Vendvidéki esettanulmány.
Helynévtört. Tanulm. 9, 89-99, 2013. ISSN: 1789-0128.
3. **Ditrői E.:** Vas megye jelenkori helynevei morfológiai megközelítésben.
Helynévtört. Tanulm. 8, 111-119, 2012. ISSN: 1789-0128.
4. **Ditrői E.:** Helynévrendszerek területi differenciáltsága.
Helynévtört. Tanulm. 7, 29-38, 2012. ISSN: 1789-0128.
5. **Ditrői E.:** Egy lehetséges módszer a helynevek területi különbségeinek igazolására.
Helynévtört. Tanulm. 6, 151-161, 2011. ISSN: 1789-0128.
6. **Ditrői E.:** Névrendszerek modellalapú vizsgálata.
Juvenelia. 3, 81-94, 2010. ISSN: 1788-6848.
7. **Ditrői E.:** Helynévrendszerek modellalapú vizsgálata.
Helynévtört. Tanulm. 5, 155-167, 2010. ISSN: 1789-0128.





Foreign language conference proceeding(s) (1)

8. **Ditrói, E.:** Territorial differentiation of toponymic systems.

In: Els noms en la vida quotidiana. Actes del del XXIV Congrés Internacional d'ICOS sobre Ciències Onomàstiques. Szerk.: Joan Tort I Donada, Monserrat Montagut I Montagut, Generalitat de Catalunya, Barcelona, 1083-1090, 2014. ISBN: 9788439391623
DOI: <http://dx.doi.org/10.2436/15.8040.01.112>

List of other publications

Hungarian scientific article(s) in Hungarian journal(s) (1)

9. **Ditrói E.:** Emlékkönyv Mező András tiszteletére (szerk. P. Lakatos Ilona, Sebestyén Zsolt).

Névt. Ért. 33, 309-313, 2011. ISSN: 0139-2190.

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The Candidate's publication data submitted to the iDEa Tudóstér have been validated by DEENK on the basis of Web of Science, Scopus and Journal Citation Report (Impact Factor) databases.

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