

What's on the other side of the river? Slovaks' mental maps on Hungary and vice versa. Experiences of a cross-border study

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Abstract

In our paper, we examine particular aspects of cross-border influence based on the data of the survey carried out in two Slovak and two Hungarian settlements along the border. Here is a summary of the results:

- Easy accessibility is much more important than geographical proximity.
- Easy accessibility primarily affects the frequency of visits and, through these visits, it has an impact on what we seek in the other country: something exotic, excursions and recreation, or some ordinary element of our daily life, be that shopping, health care services, education, housing or employment.
- Those who visit often, do not travel far, but they form more personal relationships. Those who do not visit often (which cannot be undervalued either) are mainly interested in big cities and tourist destinations farther away from the border.
- The frequency of the visits has a direct influence on the elementary/basic knowledge of the language spoken in the other country.
- The linking role of minorities and their bridge-building function has been affirmed yet again.
- Those with higher income and higher levels of education can benefit more from the advantages of the proximity of the border.

From another point of view, the study is a demonstration: the practical implementation of the innovative methods developed by us for CBC impact measurement.

Keywords: Cross-border impact, mental mapping, position generator, language skills

In the 2007-2013 budgetary period, the European Union allocated 6 billion Euros to support cross-border cooperation programmes, funding more than 6000 projects in 60 programmes. The support in the current, 2014-2020 development period has been increased by 10% to 6.6 billion Euros.¹ The success and efficiency of projects are typically measured by indicators such as the increase in the number of enterprises in the supported

¹ Co-operation across borders – Regional Policy – European Commission (http://ec.europa.eu/regional_policy/index.cfm/en/policy/cooperation/european-territorial/cross-border/, 7th May, 2016)

area, growing employment opportunities in the region, or whether equal treatment targets such as the proportion of women in project management were met.

In our opinion, these indicators measure the efficiency of projects in such an indirect way, that in essence they are unfit to measure cross-border impact. Thus, our aim was to develop a measurement method that would be able to directly assess the success and efficiency of cross-border programmes. The following approaches provided the basis for the development of our method:

- Mental mapping - the way people living along the border perceive the other side, its settlements, services and (economic) opportunities;
- Assessment of language skills - the level of knowledge of the neighbouring country's language, how functional language skills are;
- Position generator - the extent of the residents' social relationships and network on the other side of the border.

The pilot research was carried out in four locations: Esztergom, Mosonmagyaróvár, Štúrovo and Šamorín. The results showed that easy access is essential for visits in the neighbouring country: easy access affects the frequency and the aim of visits, which could be recreation or taking care of daily needs like shopping, and maybe to go to school or work there. The results have also affirmed the linking role of language minorities and showed that it was primarily those with high income and high education levels who could benefit more from the proximity of the border. Furthermore, the applicability of the proposed innovative methodology was demonstrated.

First, we describe the methods used to analyse the respondents' relation to the neighbouring country. Secondly, we present the locations of the pilot research. Following this, the third part of the study is divided into three sections structured around the three primary approaches, and it gives a detailed explanation of the survey results.

1.1 Methodology

1.1.1 Mental mapping

Mental mapping is based on how in our minds the use of space often re-defines the actual image of our surroundings. It affects what we perceive as being closer or farther away, friendly or strange. Mental or cognitive mapping *"is the product of a series of psychological processes that register, code, store, then call to mind and decode all information on our everyday spatial environment."* (Down and Stea 1973)

The measurement method proposed by us – the survey and the software supporting the online questionnaire – registered the following:

- How many times have the respondents visited the neighbouring country?
- How many settlements did the respondents know of (their name and/or their location on the map)?
- Is there a route the respondents have used more often in the neighbouring country?
- What junction and reference points could the respondents mention along this route?
- What reference points could the respondents mention in the town or settlement they knew the best?

In the paper-based survey, responses to these questions were given by free map drawing, while in the online survey, by indicating the places on an outline map. The results of the research helped measure whether the respondents knew the neighbouring country, and if so, in what detail.

1.1.2 Position generator

Another social impact of the projects supporting cross-border cooperation can be the appearance of interactions between the residents from different sides of the border, and, consequently, a denser structure of social networks and the creation of more intensive cross-border relationships.

To measure the cross-border relationships of the residents, we chose the so-called position generator method (Lin-Dumin 1986; Lin, Fu and Hsung 2001). Essentially, the respondent must indicate whether he knows people of the listed occupations. The sample includes occupations that are relevant from the viewpoint of the area's residents and are fit to inspect the diversity of both the vertical and horizontal reach of the respondents' social ties (Lin-Erickson 2008).

The relation to services was analysed similarly to the position generator: the respondents were asked to indicate whether they had any favourites, in both countries, out of the listed service-types and locations (town, village).

1.1.3 Language skills

The third component of the research starts from the point that the mental proximity of two countries speaking different languages is indicated by the extent the residents speak the language of the neighbouring country. There are many ways to measure the

knowledge of a given language, we chose two of them. On the one hand, we asked what languages the respondent spoke and at what level do they use that given language, similar to the Europass CV. (Figures 11. and 12.) On the other hand, we developed our own method, which was concerned with the basic vocabulary needed to get around, to get information during short period stays (Figures 13. and 14.). The 25-item list includes expressions that the respondents may come across in public, e.g. at a train station, in the main square, at the town hall, ice cream parlour, pharmacy, etc. The names of these reference points can be learned during a visit to the neighbouring country, by natural language acquisition (Murányi 2015). In our opinion, the familiarity with these expressions represents the difference between those who cannot get around at all in the target country, and who can, although with limitations (to put it in everyday language: they don't have to be taught how to fish). Incidentally, a respondent with such limited language capacity could declare that he didn't speak the neighbouring country's language at all in the Europass CV section.

The main innovation of the method, developed by us, is that the expressions were asked about in three forms: first, as part of the active vocabulary, second, as that of the passive vocabulary, and finally, as an image, when we measured visual recognition. The concept of active and passive vocabulary is rather well known, so we will only describe that of visual recognition. These questions allow us to know the extent to which respondents can recognise the target country's reference points if they are not familiar with their linguistic code, e.g. does a Hungarian visitor recognise a main square, a pharmacy, a bus stop in Slovakia, even if he does not speak Slovakian, so he does not understand the labels. The results of this method held no obvious surprise: Slovakia and Hungary are visually similar, and their reference points were recognised by the countries' respondents even if they did not speak each other's language at all (they were not familiar, even on a passive level, with the basic vocabulary of getting around). This may seem a clichéd obvious result to everyone familiar with the two countries, but we must point out that this measure was conceived to measure the cognitive distance between any two countries.

1.1.4 Data collection locations

The proposed method was tested during a pilot research, which was conducted at the same time in four locations along the Slovak-Hungarian border. We chose two locations in both countries: in Hungary, Esztergom and Mosonmagyaróvár; in Slovakia, Štúrovo and Šamorín. The research was primarily designed to focus on comparison, and this goal was fulfilled from several aspects by the chosen settlements.

At the time of the 2011 census, Esztergom had 28,926 inhabitants and Mosonmagyaróvár had 32,004; in both cases the majority declared Hungarian affiliation, neither have significant minority ethnic groups. Štúrovo and Šamorín are somewhat smaller than their Hungarian counterparts: in the 2011 census, Štúrovo had 10,919 inhabitants and Šamorín had 12,726. Both towns have significant ethnic Hungarian minorities: in the last census in Štúrovo 6,624 (60.7%), while in Šamorín 7,309 (57.4%) people declared themselves of Hungarian ethnicity.

Esztergom and Štúrovo are members of the Ister-Granum EGTC, Mosonmagyaróvár and Šamorín are members of the Arrabona EGTC. Moreover, Štúrovo and Esztergom are twin towns, and so are Šamorín and Mosonmagyaróvár. Cooperation between Štúrovo and Esztergom has a long history: the two municipalities became official twin towns in 1991. Later on, the respective mayors first agreed on a regional cooperation in 1999, which was further fuelled by the simultaneous accession of both countries to the European Union.² Arrabona EGTC was established in 2010.³

Esztergom and Štúrovo are border crossing points, they have been connected by the Mária Valéria Bridge since 2001, and previously the Danube could be crossed by ferry. However, there is no direct connection between Šamorín and Mosonmagyaróvár. The closest border crossing point on road is 18 kilometres from Mosonmagyaróvár (Rajka-Rusovce/Oroszvár), and approximately 27 kilometres from Šamorín (Gabčíkovo/Bős - Lipót).

Thus, a two-dimensional comparison can be made: on one level, the samples of the two Hungarian and two Slovak settlements can be compared, by which we can examine the effect of the direct connection and the longer cooperation; on a second level, the two Slovak samples can be compared with the two Hungarian ones, which can illustrate the role played by minority groups living in neighbouring countries.

In each of the four settlements, interviewers carried out 125 surveys. The flexible survey method (Letenyei 2004) was used to pose the questions; thus, the interviewer had to indicate everything that was heard and said at the scene, including e.g. whether the interviewer addressed the respondent formally or informally, whether he used the standard additional interpretations supplied to the questions, and whether the respondent added something else besides the answers themselves. This data collection was accompanied by an online survey, which was answered by a sample of Hungarian and

² Ister-Granum EGTC (<http://www.istergranum.hu/tortenet.html>, 12th May, 2015)

³ Arrabona EGTC (http://www.arrabona.eu/egtc_bemutatas.html, 12th May, 2015)

Slovak enterprise representatives. The present study is based on the responses given to the paper-based survey.

Figure 1: Respondents by levels of education

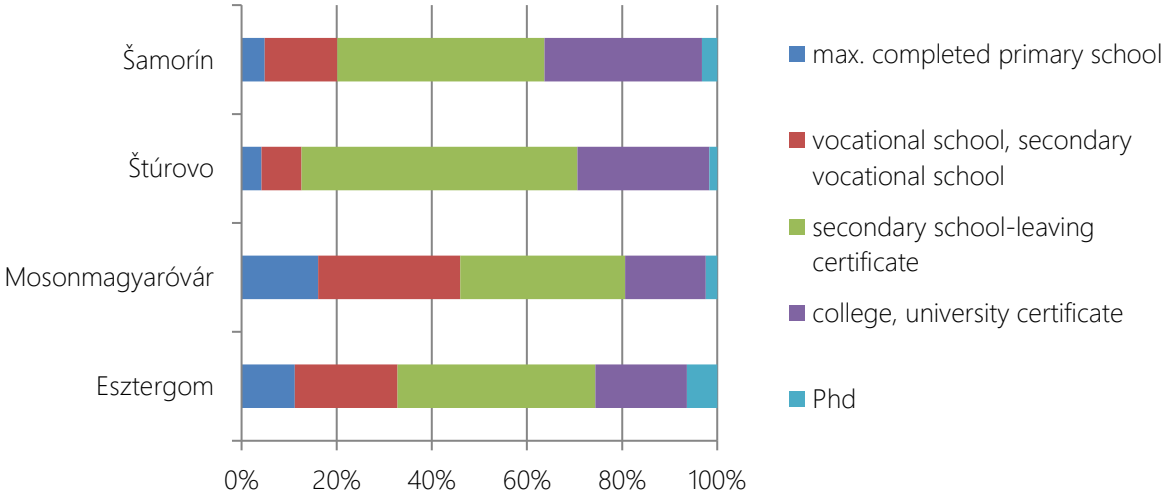
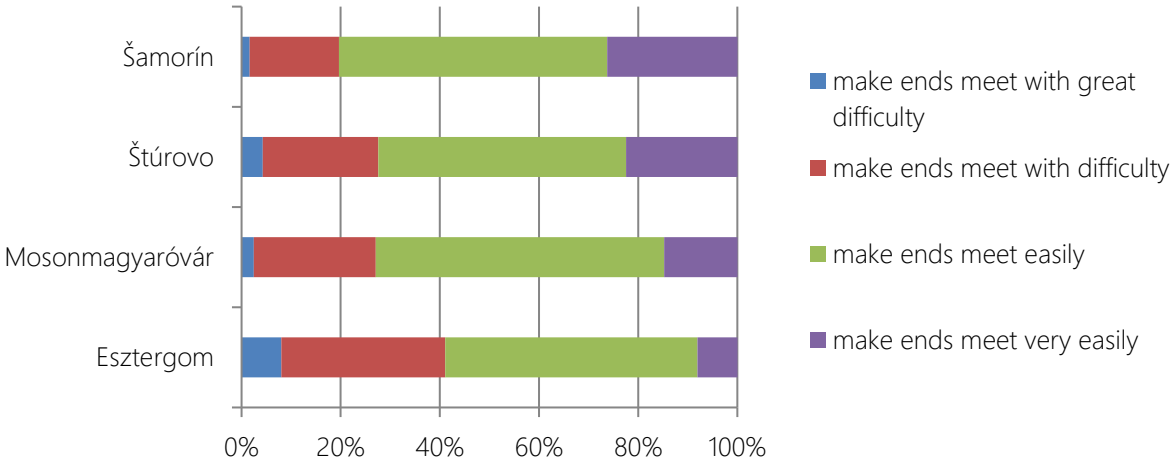


Figure 2: Respondents by their subjective income



The Slovak samples had more respondents with secondary school certificate, but the two Slovak samples did not show significant differences.

The subjective income of the two Hungarian sample respondents did, however: the replies given by the Mosonmagyaróvár respondents indicated a somewhat better income situation. The Slovak samples did not differ greatly from each other, nor from that of Mosonmagyaróvár.

There were many respondents with Hungarian mother tongue in the Slovak samples: there were 99 Hungarian mother tongue speakers in Štúrovo, 116 in Šamorín, while there were 20 Slovak mother tongue speakers in the first and 6 in the second; however, out of them 18 and 4, respectively, spoke Hungarian. There were none with Slovak mother tongue in

the Hungarian samples; except for a small number of the respondents, all were of Hungarian mother tongue.

1.2 Results

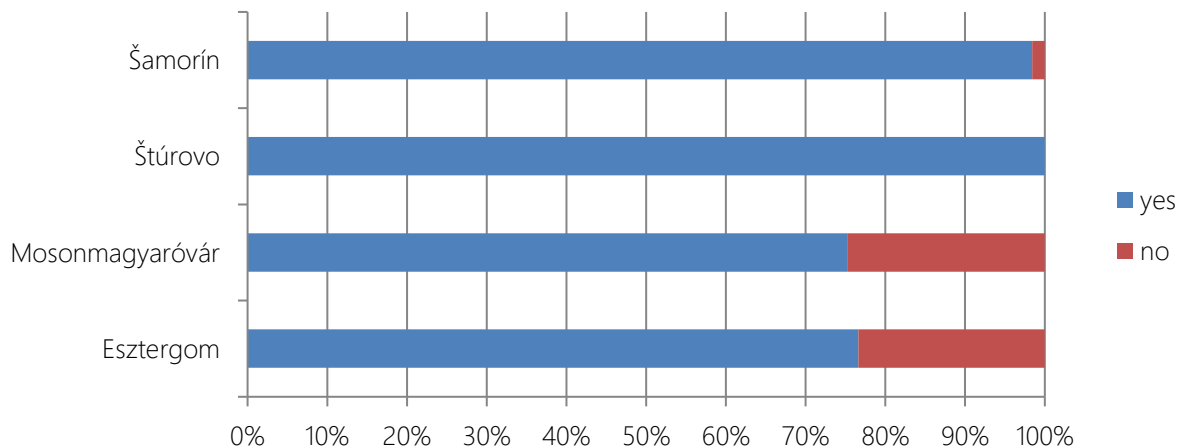
1.2.1 Mental mapping

There were four questions in our survey about the mental map of the neighbouring country (how much the respondents “perceive” of the neighbouring country).

- How many times has the respondent visited the neighbouring country?
- How many settlements did the respondent know of (their name and/or their location on the map)?
- Is there a route the respondent has used more often in the neighbouring country?
- What junction and reference points could the respondent name on this route?
- What reference points could the respondent mention in the town or settlement he knew best?

The frequency of the “drop ins”

Figure 3: Respondents on whether they have ever been to the neighbouring country



Our first comment is that the proportion of those who have been to Slovakia was the same among the residents of both Hungarian settlements: about three-fourths of the respondents. This result was not what we expected: while Esztergom and Štúrovo have a bridge connecting them, Mosonmagyaróvár and Šamorín, which are at most 10 kilometres away “as the crow flies”, have none, thus it takes a rather considerable detour to get to Slovakia or Hungary from the other country. Because of this, we thought (what’s more, we formulated this as the main hypothesis of our research) that, for example, we would find many more respondents in Esztergom than in Mosonmagyaróvár who have been to

Slovakia. Well, it was revealed that the differences we expected to find were not hidden here, but in another section of the results: in the frequency of the visits.

One indicator of the frequency of the visits in the survey was the number of times the respondents visited the neighbouring country in the past twelve months. There were only 4 people in Štúrovo and 12 in Esztergom who indicated that they have *not* been to the neighbouring country (out of the 125 respondents each), while this number was 39 in Mosonmagyaróvár and 10 in Šamorín. In the last 12 months, the respondents of Esztergom visited the neighbouring country 34.7 times on average, of Štúrovo 30.12 times, of Šamorín 8.47 times, and of Mosonmagyaróvár only 1.94 times.

Based on the median values, the first two samples switch places: the median is highest in Štúrovo with 20 visits, in Esztergom it is 13.5, in Šamorín 4, and in Mosonmagyaróvár 1, which means half of the respondents have been to the neighbouring country maximum this many times, and the other half minimum this many times. Both indicators showed a rather close connection of the Štúrovo and Esztergom residents to the neighbouring country. Further, they showed that the values were higher in Šamorín than in Mosonmagyaróvár, which perhaps can be explained mainly by the presence of the ethnic Hungarian minority.

The two Slovak settlements also had similar values of the Hungarian visits (98% and 100%, respectively). This proportion also revealed something we had not expected: the rate of those Slovaks who have been to Hungary was higher than vice versa. Out of the analysis angles included in the research, this can mostly be explained by the factors of the mother tongue and the knowledge of the language. There was a significant (approx. half a million) Hungarian mother tongue population living in the south of Slovakia, and Slovak mother tongued respondents who spoke Hungarian also appeared in the sample. In the Hungarian sample, on the other hand, no mother tongue respondents of Slovak mother tongue appeared, and Slovak language knowledge was rare. This result supports the hypothesis/assumption usually present in academic literature about the mediator and bridge function of linguistic minorities.

1.2.2 Prosperity, education, neighbourhood

Deeper familiarity with the neighbouring country showed strong positive correlation with education levels and subjective income, the reverse of which meant that people with lower education levels and/or poorer people could benefit less from the advantages presented by the proximity of the border.

The *frequency* of visits to Slovakia was clearly influenced by the link between the level of education and the number of visits: in the last year, Štúrovo residents with college or

university degree have been to Hungary 49 times, with secondary school-leaving certificate or lower 25 times, and with vocational certificate only 19 times. In Šamorín, the difference presented itself above the residents with and without secondary school-leaving certificate: higher education level appeared to be accompanied by approx. 10-11 visits to Hungary in the last twelve months, lower education level by nearly 3. Subjective income only had a manifest effect in Šamorín. This also suggests that in Šamorín, a visit to Hungary was also a question of available financial resources, as opposed to Štúrovo, where, as it was the already mentioned, proximity and easy access played priority roles.

In the Hungarian samples, neither education levels, nor income had palpable effects on the frequency of neighbour visits, but age did: *younger* residents crossed the border over to Slovakia more often.

The question about how many towns the residents had visited (the scope of the mental map) was related to levels of education in Esztergom and Štúrovo, and to subjective income in Mosonmagyaróvár and Šamorín. In Esztergom, college or university graduates named 2 settlements on average, people with secondary school-leaving certificate 1.5, and those with vocational certificate or lower only 0.9. In Štúrovo, the line is drawn at secondary school-leaving certificate level. Those without secondary education could name 4.4 settlements on average, while those with it approx. 5.1-5.2 settlements. In Mosonmagyaróvár, those who found it hard or very hard to make ends meet could list 1.33 settlements, and those living in more favourable financial situation 2.1. In Šamorín, these values were 3.8 and 5 respectively.

The respondents also had to answer the number of times they had been to the settlement they listed first. This question received a rather small number of replies from Hungarian sample respondents: 54 in Esztergom and 77 in Mosonmagyaróvár. Nevertheless, there is clear evidence that Esztergom respondents had been to the given settlement more: 31.4 times on average, while those of Mosonmagyaróvár only 9.9 times. In the Slovak sample, there were decidedly high numbers given: in Štúrovo 581 visits on average, and in Šamorín 70 visits. Because of the tilt in distribution, it is prudent to examine median values, as well: it was 324.9 in Štúrovo, 30 in Šamorín, 20 in Esztergom, and 5 in Mosonmagyaróvár. These numbers reflect the strong relationship between Esztergom and Štúrovo, in which, in our opinion, the proximity of the two settlements and the connecting bridge plays a role, but it also showed that it is primarily the Hungarian population of Slovakia that cross the border more frequently.

1.2.3 What is perceived of the neighbouring country?

Those respondents that had already been to the neighbouring country were asked further questions: they were asked to list 5 settlements they had already been to, which one they visited most often, and what route they took to get there. According to the answers, it was the closest town they visited most often. The data clearly demonstrates the existing strong ties between Esztergom and Štúrovo. In Šamorín, the primary destination was Győr, the second in line was Budapest; in Mosonmagyaróvár, most people listed Bratislava as first, while Šamorín was tied in second place with Dunajská Streda (Dunaszerdahely) with only 7.5% of the responses. Well, the lack of a bridge can be noticed here: where a direct connection exists, the pull of the closer settlement was stronger, while the pull of the Hungarian capital, only 45 kilometres away, was weaker. If we added to this the rest of the settlements the respondents had visited (all in all 5 settlements were mentioned), we could encounter more settlement names that were situated far from where the survey was carried out. The strong relationship between Esztergom and Štúrovo was still obvious in the comprehensive list: Esztergom was named by 121 Štúrovo respondents (just a reminder: the sample consisted of 125 participants in each settlement), and Esztergom respondents put Štúrovo far above the rest of the list with 85 mentions, while the second was Bratislava with 13, and the third was Komárno with 12. The comprehensive list showed that Mosonmagyaróvár respondents listed Bratislava first (72), Šamorín second (21), and Dunaszerdahely third (17). Most of the Šamorín respondents visited Győr most often (115), Budapest was in second place (102), and Mosonmagyaróvár was only the third (33) on the list. It is thus clear that those living in Mosonmagyaróvár and in Šamorín rarely visit the other settlement, even if it is only 15 kilometres away as the crow flies (in contrast with Štúrovo and Esztergom, which have had a bridge connecting them since 2001) and it is the pulling effect of the nearby big towns (Bratislava, Győr, Budapest) that primarily affects them.

Figure 4: What respondents from Esztergom and Mosonmagyaróvár perceive of Slovakia (Esztergom – green, Mosonmagyaróvár – red)

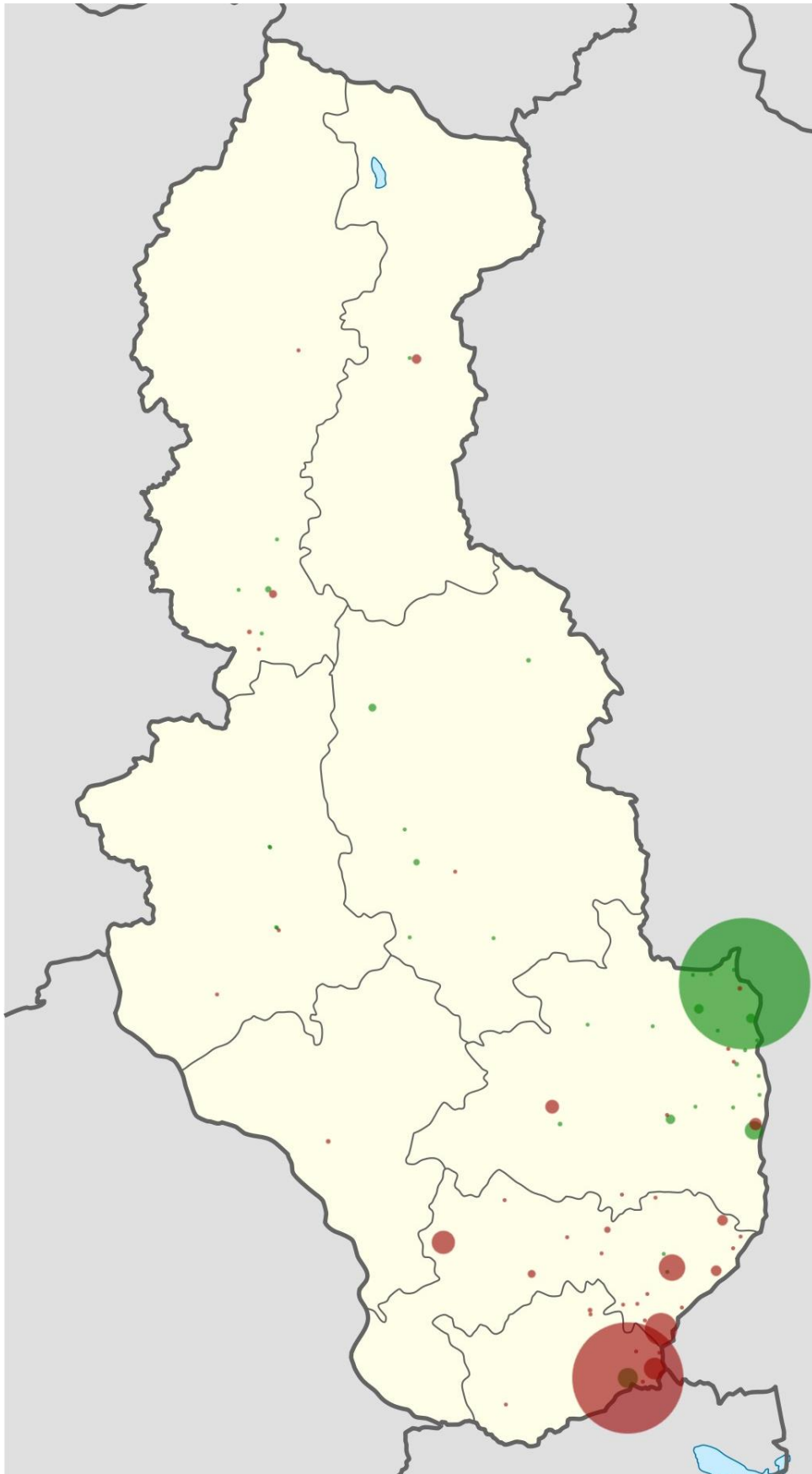
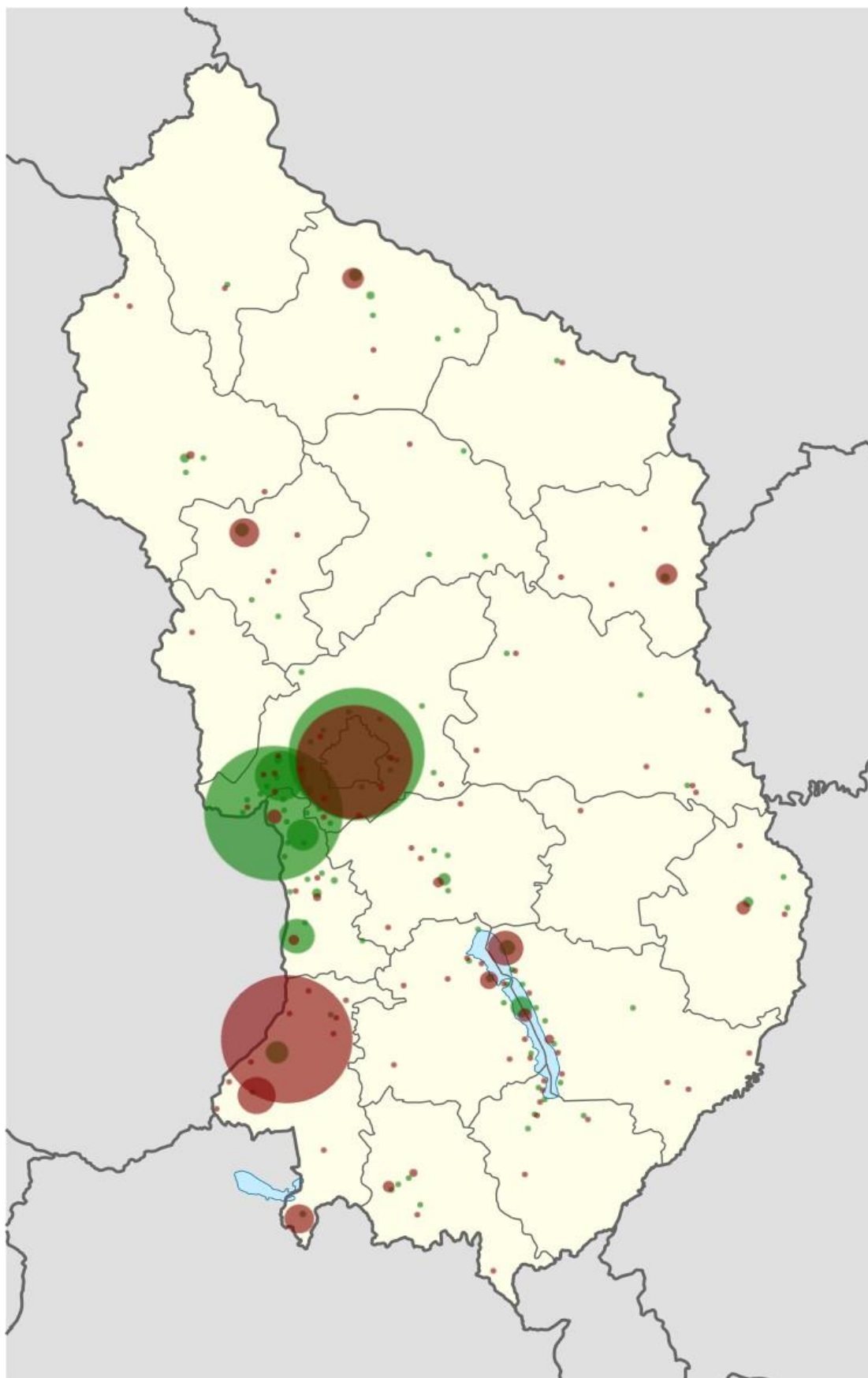


Figure 5: What respondents from Stúrovo and Šamorín perceive of Hungary (Stúrovo – green, Šamorín – red)



Besides the settlements close to the border, typical tourist and holiday resorts had a relatively high number of mentions: the settlements of the High Tatras and Piešťany (Pöstyén) in Slovakia, and Lake Balaton in Hungary. Slovak respondents also mentioned several large Hungarian towns, primarily county capitals (e.g. Eger, Debrecen, Szeged, Pécs).

Out of the listed 6 settlements, the respondents of Esztergom indicated 1.42 on average, those of Mosonmagyaróvár 1.85, of Šamorín 4.85, and of Štúrovo 4.91: it is apparent that Slovak respondents, primarily Slovakian Hungarians, know more about Hungary than the Hungarian respondents know about Slovakia.

1.2.4 From... to...? (axes)

Respondents could comment on one of their visits to the neighbouring country: departure point and destination, and a settlement on the way to their final destination. The routes that could be thus indicated also demonstrate the strong ties between Esztergom and Štúrovo. Particularly Esztergom's twin town was a dominantly popular destination here: almost half of the respondents had visited it. Štúrovo respondents often mentioned Budapest besides Esztergom, and their route to the capital also led through Esztergom. In the case of farther destinations, Budapest was the most frequently mentioned settlement in between. In the other two towns, the twin town had no dominant role, the already mentioned pulling effect of the respective capitals could be perceived. The twin town was cited by 5 people in Mosonmagyaróvár, and only by one in Šamorín. The respondents of Mosonmagyaróvár named Bratislava as the town "in between" on the way to farther destinations, and Rajka in the case of visits to the Slovak capital; Šamorín respondents most often travelled through Budapest or Győr.⁴

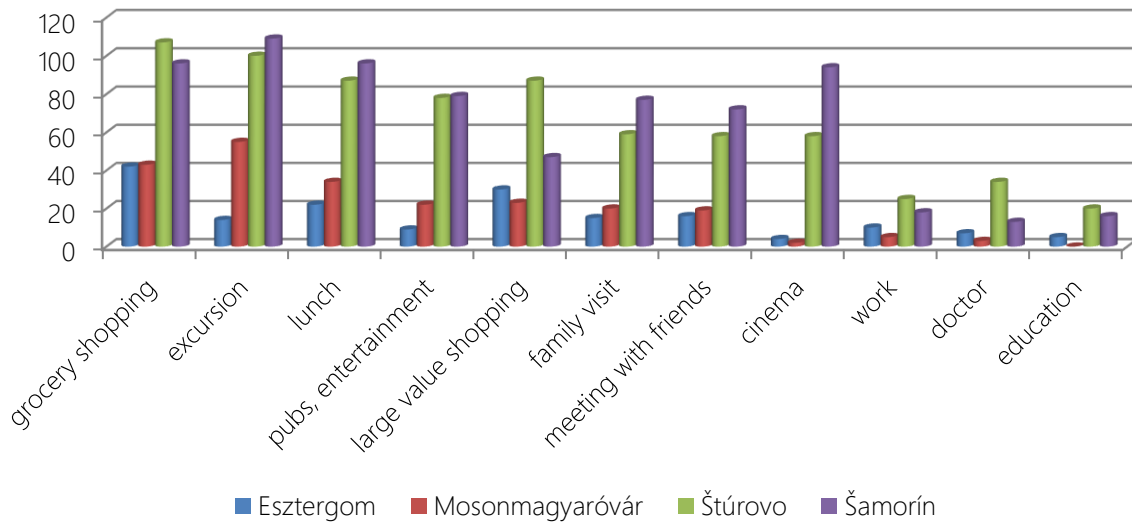
1.2.5 Why visit the neighbour?

Besides the destination and the frequency of visits to the neighbouring country, we also asked about the reasons and motivations of the visits to Hungary or Slovakia. On the one hand, participants were asked to respond in their own words, and on the other hand, they were asked to state whether they had taken part in the listed activities in the neighbouring country (and to supply additional details about it.) The answers to the two types of questions were in harmony, and so, because of content length limitations, we only present

⁴ The graphs of typical routes can be found in the Appendix.

the responses to the closed-ended questions in the present study, and only refer briefly to the open-ended one to add further dimensions to the results.

Figure 6: How many of the respondents took part in the following activities in the neighbouring country?



In Šamorín and Mosonmagyaróvár, the main motivation of visits was recreation (excursions, holidays, tourism), but, perhaps linked to the above mentioned, many took part in small or large- scale shopping, had lunch, chose some form of entertainment, and a relatively high percentage visited family or friends.

In Esztergom and Štúrovo, recreation was not ranked as highly, rather, the needs of daily life gained importance, e.g. shopping. The respondents in Esztergom highlighted the cost of petrol in Slovakia, which for a long time was more favourable to the Hungarian petrol cost, the fair of Štúrovo, and they also mentioned that the proximity of Štúrovo and the ease of its access appeared as further motivations. Employment, education, and doctor's visits were listed among the less common activities, however, it was ranked higher in Štúrovo and Esztergom than in the other two settlements.

The values attributed to activities were 1.81 in Mosonmagyaróvár and 1.39 in Esztergom. The Slovak samples presented higher values: respondents reported 5.7 activities in Štúrovo and 5.66 in Šamorín. The differences between settlement pairs were not significant, and the somewhat higher values in Mosonmagyaróvár may have been caused by the wide spectrum of activities they took part in during holidays and excursions (lunch, entertainment).

Respondents were also asked to use their imagination and take the interviewer with them to the settlement they visited more often, and to paint a picture about the places they would undoubtedly have him visit. The responses underpin our claims referred to above: for Štúrovo and Esztergom residents, visits to the neighbouring country are different from

those of Šamorín and Mosonmagyaróvár. The residents of the first two listed destinations connected to shopping (malls, stores, markets) more readily, while the residents of the latter two focused more on recreational activities (tourist sights, baths, theatre, cinema, etc.).

Figure 7: What would the respondents have the interviewer undoubtedly see in their most visited settlement?

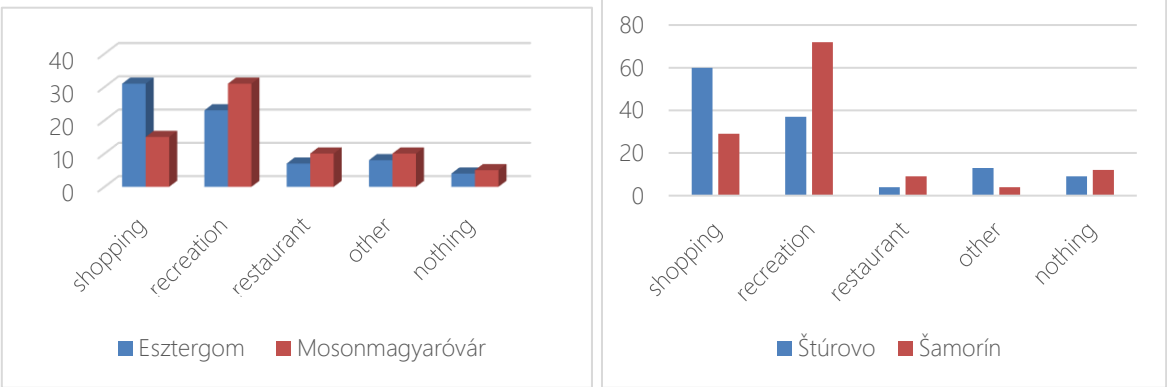
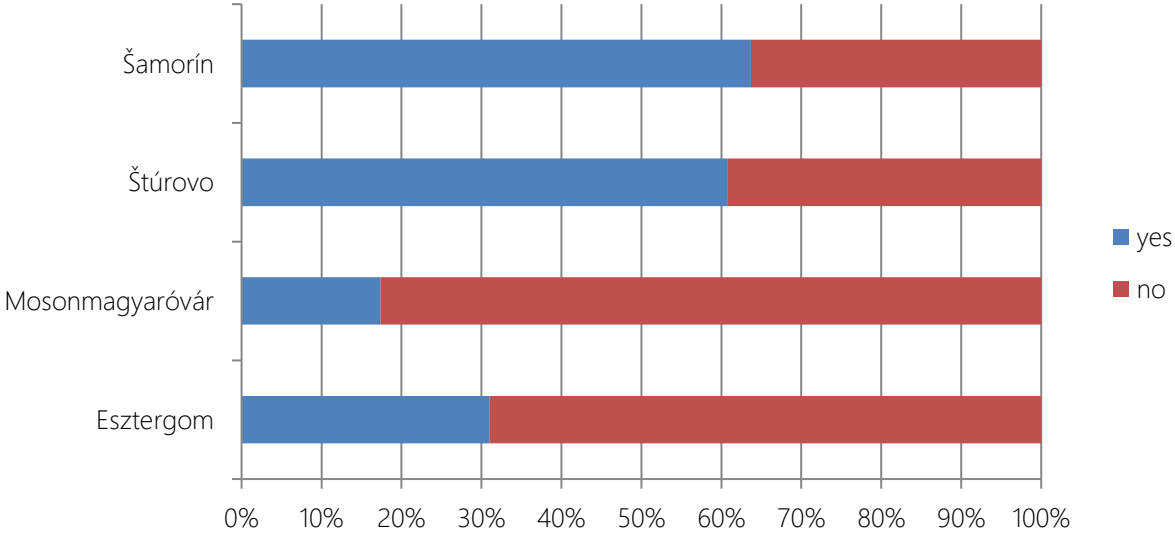


Figure 8: Respondents' replies on whether they would be willing to spend a couple of years living in the neighbouring country for work purposes



Respondents could state whether they were willing to live for a couple of years in the neighbouring country for work purposes. The question was two-fold: first, they had to state whether they would live in their most visited settlement, and after that they could freely choose a settlement they would be willing to live in. Figure 8 shows a comprehensive picture about the percentage of respondents willing to live in the neighbouring country for a couple of years. It was apparent that the percentage of those who were willing was higher in the Slovak settlements, given the presence of Slovakian Hungarians, but at the same time, it was obvious that the percentage of respondents willing to live in the neighbouring country was highest in Esztergom. A possible

interpretation of these results is that Esztergom respondents accept the neighbouring country more easily BECAUSE they visit there more often, and they have more experience of the daily life there, which is the logical consequence of the opened bridge in 2001 and the provided direct connection.

1.3 Our relationships on the other side of the border (position generator)

Position generator is our “measuring instrument” which evaluates cross-border personal relationships. During the assembly of the list of positions, we paid special attention to the fact that they should be fit to measure the diversity of both the horizontal and the vertical dimensions of the relationship and social network. All in all, we can state that the social network of the respondents did not reach far over the border. Slovaks, most of all Slovakian Hungarians, had more personal relationships in Hungary than vice versa, and the absolute number of relationships was positively influenced by education and income levels.

Out of the 22 listed occupations, on the average 1.35 was mentioned in Esztergom, 0.67 in Mosonmagyaróvár, 2.8 on Šamorín, and even in Štúrovo the number of mentions was only 3. The difference between the samples primarily manifests itself in Esztergom and Štúrovo, where there was a higher percentage of respondents who could access a higher number and proportion of relations. The limits of the higher deciles were 6 in Esztergom, only 2 in Mosonmagyaróvár, while 9 in Štúrovo and 7 in Šamorín: this signifies that the 10% of the respondents possessing most relationships in each settlement, respectively knew at least that many people in the neighbouring country.

There were of course noticeable differences between the occupations. Some were relatively well known, like educators, small business owners, doctors, and nurses. However, occupations like house-cleaners, unskilled workers, tractor drivers, and policemen were barely mentioned.

Figure 9: The number of respondents that knew people of the listed occupations

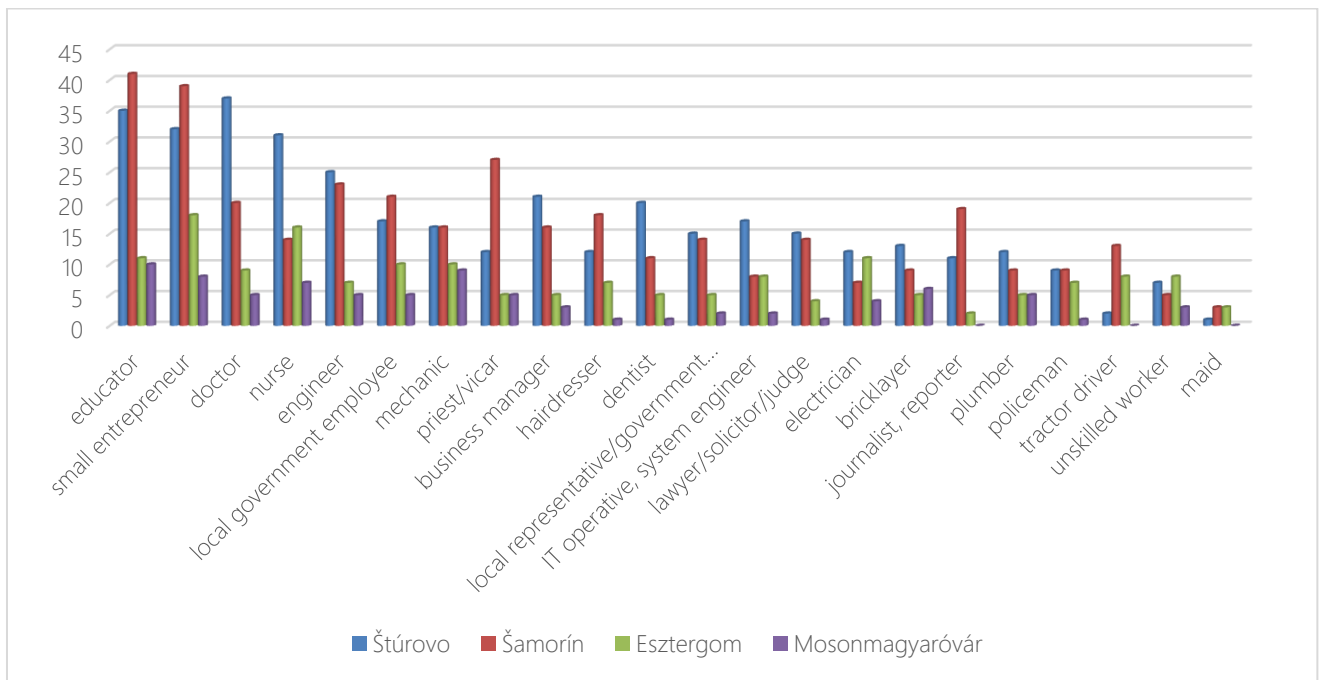
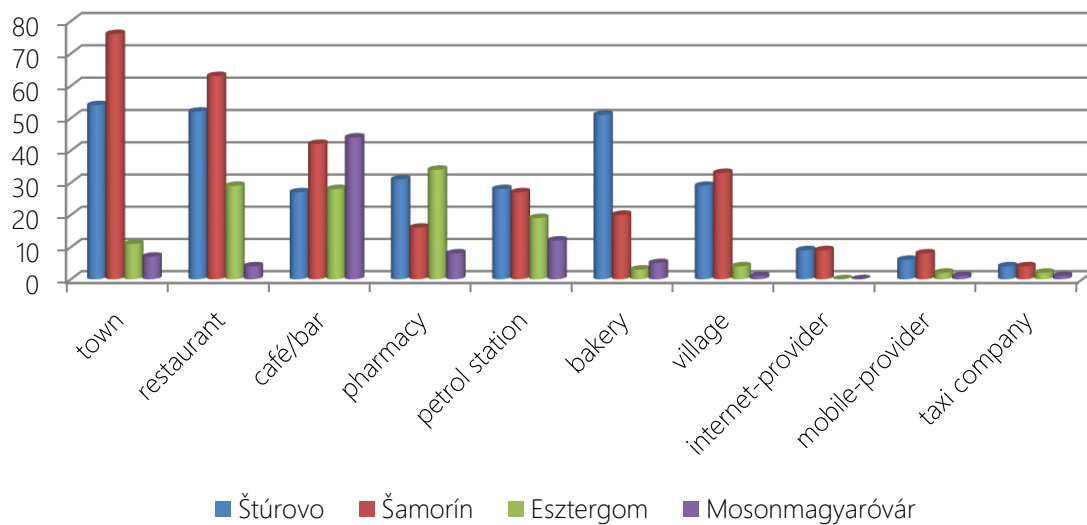


Figure 10: The number of respondents with favourite services or locations in the neighbouring country



We studied the use of the neighbouring country's service sector network just as we did with its relationship and contact network. More precisely, we asked whether respondents had any favourite services and settlements in the neighbouring country. On the average, there were 1.1 favourite places in the Esztergom sample, 1.7 in the Mosonmagyaróvár one, 2.1 in the Štúrovo one, and 2.3 in the Šamorín one, which again showed higher values in the Slovak settlements. The two Hungarian settlements differed greatly from each other, although there were exceptions; Esztergom respondents connected more to most services and settlements. Overall, Štúrovo and Šamorín did not differ from one another, nevertheless, there were some services that one or the other preferred more.

1.4 Language skills

The third pillar of our measurement was the questionnaire about language skills and knowledge of languages. The respondents were asked what foreign language they spoke besides their mother tongue (max. 3 languages). Most Hungarian sample respondents did not list any, but most of those who did, listed German or English. There were 10 people in Esztergom who spoke some degree of Slovak, and there were 5 who spoke some other Slavic languages (Russian, Croatian, Czech). Nobody spoke Slovak in Mosonmagyaróvár, but 10 spoke Russian. In Šamorín and Štúrovo, the most common “foreign” language was the national language, as most of the respondents were of Hungarian mother tongue. The other most spoken languages were English and German, too. Most of Slovak mother tongue respondents also spoke a certain degree of Hungarian.

Figure 11: Knowledge of foreign languages in Esztergom and Mosonmagyaróvár

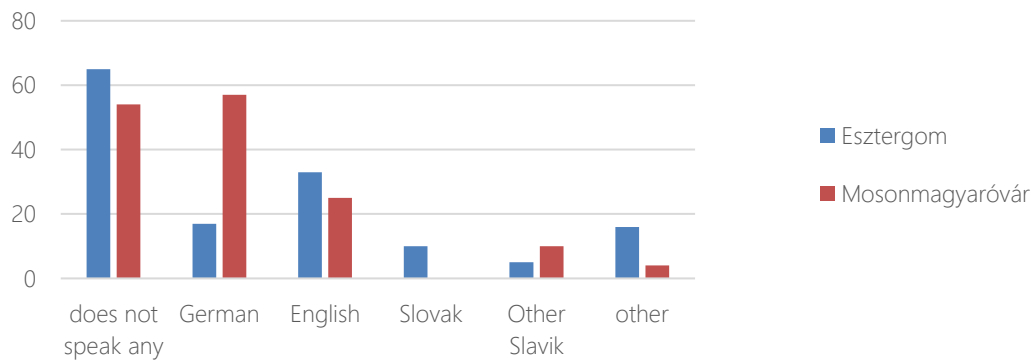


Figure 12: Knowledge of foreign languages in Štúrovo and Šamorín

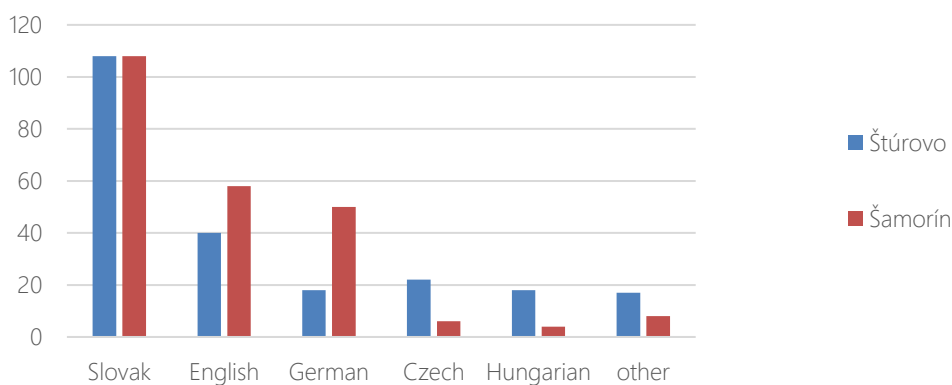
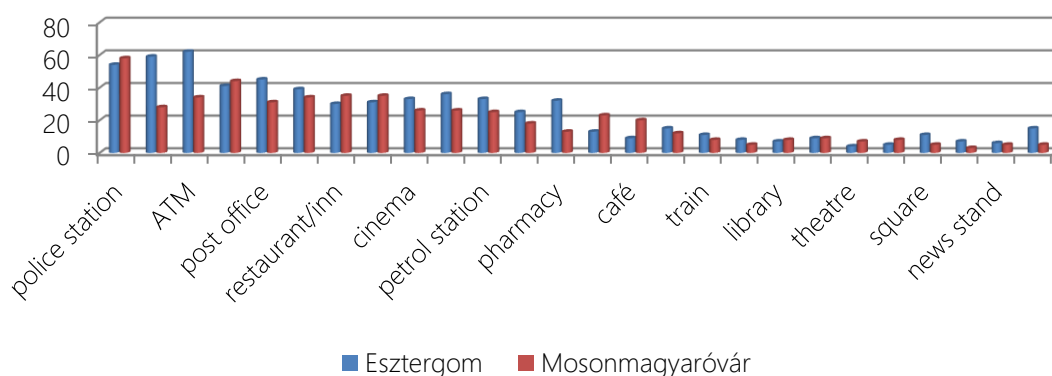
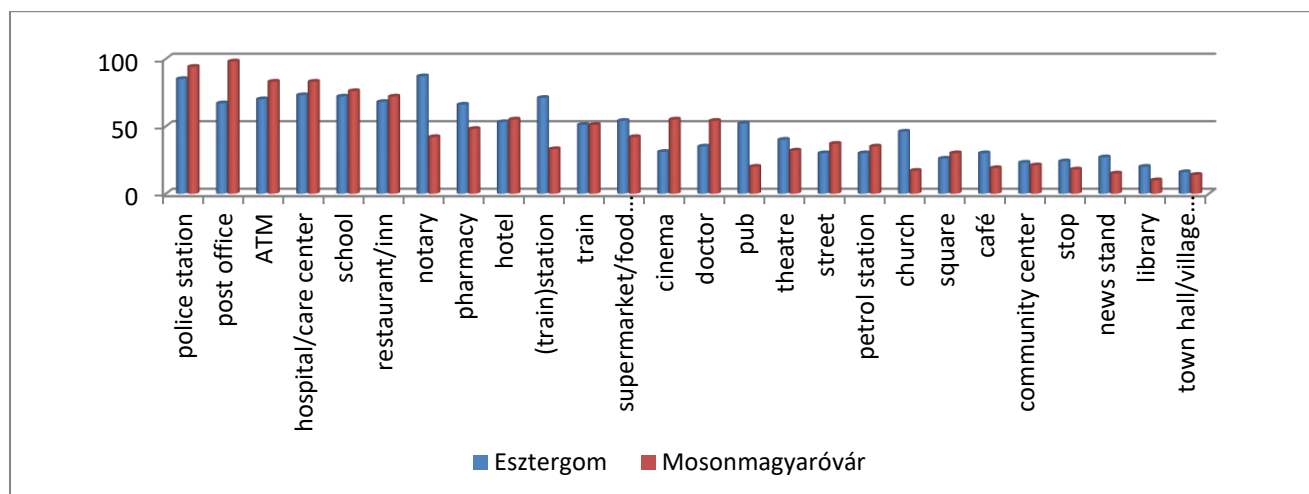


Figure 13: The following expressions were present in the active vocabulary of the respondents



In Štúrovo and Šamorín, 24.6 and 24.4 expressions, respectively, were present in the active vocabulary on average. The reason is that in both samples the majority of respondents were of Hungarian mother tongue or it was spoken as a foreign language. In Mosonmagyaróvár, nobody spoke Slovak, and only 10 out of the 125 people in Esztergom spoke it as a foreign language. Of the listed expressions, 5.1 were present in the residents' active vocabulary in Esztergom, and 4.2 in Mosonmagyaróvár. However, the average reacts more sensitively to peaks in value, thus it is prudent to take a look at the median: it was 4 in Esztergom and only 1 in Mosonmagyaróvár, so the difference in between cannot be explained by the presence of Slovak speakers in the Esztergom sample.

Figure 14: The following expressions were present in the active or passive vocabulary of the respondents



Still, the difference in between disappeared when we also took into account the *recognition* of foreign language expressions. Mosonmagyaróvár respondents were more successful in this respect. In Esztergom, 10 words were recognized actively or passively on average, while in Mosonmagyaróvár 9.2 on average, the median in both cases were 9.

There were well-known and not-so-well-known words listed. All in all, many respondents recognised words that had similar Slovak and Hungarian forms, or which they recognized

as the forms used by major European languages, e.g. *rendőrség* - police station, *posta* - post office, *szálloda* - hotel, *bankautomata* - ATM. When the two forms of the word differed greatly (e.g. *újságárus* - newsstand, *színház* - theatre, *városháza* - town hall, *könyvtár* - library) they were recognized less in both the active and passive vocabulary. In Esztergom and Mosonmagyaróvár, in the case of some words that were different from the neighbouring country's language form and from the major European language forms (e.g. *közjegyző* - notary, *vasútállomás* - train station, *kocsma* - pub, *templom* - church) there were significant differences, thus the positive effect of the frequent visits on natural language acquisition could be observed.

1.5 Correlation between the indicators

The study, structured around three pillars, examined the impacts of cross-border cooperation (CBC) projects. Accordingly, we had the possibility of analysing the relationship with the neighbouring country from different aspects. The method of mental mapping revealed how many times the respondents visited the neighbouring country in the last 12 months, how many times they visited the settlement they visited most frequently in total, how many settlements they could name, and what activities they took part during these visits. Additional indicators revealed the number of relations with occupations of the neighbouring country, the number of favourite services, and finally the extent of their total, active and passive vocabulary. The results of these measuring methods (all the indicators of mental mapping, cross border personal relationships and knowledge of languages) were naturally more or less in harmony and correlation; however, as they measured different, more or less independent dimensions of the relationship, this correlation is not necessarily present between each and every indicator. Already existing correlations and especially the correlations to come be discussed later in this study can provide additional details about the relationship to the neighbouring country.⁵

In Esztergom for example, there was a strong, clear correlation between the two indicators measuring the frequency of the visits, which, however, was not present in Mosonmagyaróvár. This also suggests that the visits of Esztergom respondents were chiefly directed at one particular settlement: for half of them, it was Štúrovo. However, for Mosonmagyaróvár residents, there was no settlement of this degree of popularity; their latest visits did not necessarily have the same, already visited destination. This is suggested

⁵ The figures of the correlation matrix can be found in the Appendix.

by the fact that there is a medially strong correlation between the number of visits to the settlement at the top of the list and the number of settlements listed in Mosonmagyaróvár.

It is also interesting to note that the number of occupations, favourite services, and enjoyed activities are all primarily correlated with the number of listed settlements, and there is only a much weaker correlation with the frequency of the visits if there is any correlation at all: thus, it is not primarily those respondents to have many relations and favourites who have visited Slovakia often, but those who have visited the highest number of settlements.

Except for the Šamorín sample, and primarily in the Mosonmagyaróvár one, there is a relatively strong correlation between the number of listed settlements and the number of enjoyed activities, that is, the indicators demonstrating the diversity and variety of the relationship with the neighbouring country. The proportion of lower correlation coefficients in the matrix of Šamorín is relatively high, which appears to show that the different indicators measuring the relationship with Hungary are more independent from each other. Significant correlation was only present between the indicators of the visit frequency and the number of activities, the latter of which is rather strongly connected to the number of occupations known.

In contrast, in Štúrovo, relatively high correlation coefficients are much more frequent. Out of all the indicators, only that of the number of visits to the firstly listed settlement shows a relatively weak correlation with the others.

1.6 Summary

Our study presented the main results of the research carried out at the Slovak-Hungarian border, the main concern of which was how much residents on both sides of the border knew the neighbouring country, its language, and to what extent they benefited from the permeable borders.

The results demonstrated that the presence of Slovakian Hungarians in the area exerts considerable influence on the development of cross-border relationships. The percentage of those who have ever been to the neighbouring country (Hungary) was higher in the Slovak sample, they could list more settlements they had visited, and they also acquired more relationships in the neighbouring country.

Still, other differences of the settlements have also been revealed. In the Hungarian samples, the respondents in the Esztergom sample had the strongest relations with the neighbouring country, to a higher or lower degree but in all three aspects, while of the Slovak samples it was Štúrovo's residents about whom the same could be claimed.

Compared to the respondents of Mosonmagyaróvár, those of Esztergom visited Slovakia more often in the last year, they were also more willing to live a couple of years in the country, they had more cross-border relationships, they could list more favourite services, and their active vocabulary was also relatively more extensive than that of Mosonmagyaróvár respondents.

Accordingly, the relationship of Štúrovo respondents with Hungary was more intense: the number of their visits to the neighbouring country in the last 12 months was significantly higher, and they also had more, although only slightly more, relationships across the border.

Of all the indicators which could potentially explain the strength of the connection, the strongest influencing factor in the case of Esztergom and Štúrovo was education levels, while in Šamorín and Mosonmagyaróvár it proved to be income levels.

Besides Štúrovo and Esztergom having a more intense connection with the other side of the border than the other two locations, their visits were typically motivated by other factors, too: while in Šamorín and Mosonmagyaróvár, the primary aim was recreation, holiday, excursions, and vacation, while in Štúrovo and Esztergom it was shopping. Additionally, although all in all these activities were not typical at either location, the number of those who studied, worked, or went to the doctor in the neighbouring country was higher in Štúrovo and Esztergom; these were the activities that indicated a tighter, regular connection.

Furthermore, it is important to highlight the strong relationship between Štúrovo and Esztergom: in both settlements, the most well-known settlement was the twin town, and this is especially true when we only consider the settlement that the respondents visited most frequently. The same cannot be claimed about the relationship between Mosonmagyaróvár and Šamorín: for Šamorín respondents, the most well-known settlements were Győr and then Budapest, their twin town only followed in third place. For those in Mosonmagyaróvár, the primary destination was Bratislava, with Šamorín trailing far behind.

In our opinion, the results can be primarily explained by the Mária Valéria Bridge, connecting Štúrovo and Esztergom since 2001. The residents of these settlements have ample opportunity to visit the neighbouring country or settlement, and they can do so easily, even on foot, which does not make this trip the sole privilege of those in better financial position. The situation of Šamorín and Mosonmagyaróvár is different. Although they are only 17 kilometres away as the crow flies, they are still relatively far from border crossing points, thus a visit to Hungary and Slovakia is mainly the privilege of those in higher income positions. The construction of a new, closer border crossing point could,

even significantly, transform the relation of Šamorín and Mosonmagyaróvár residents with their neighbouring country.

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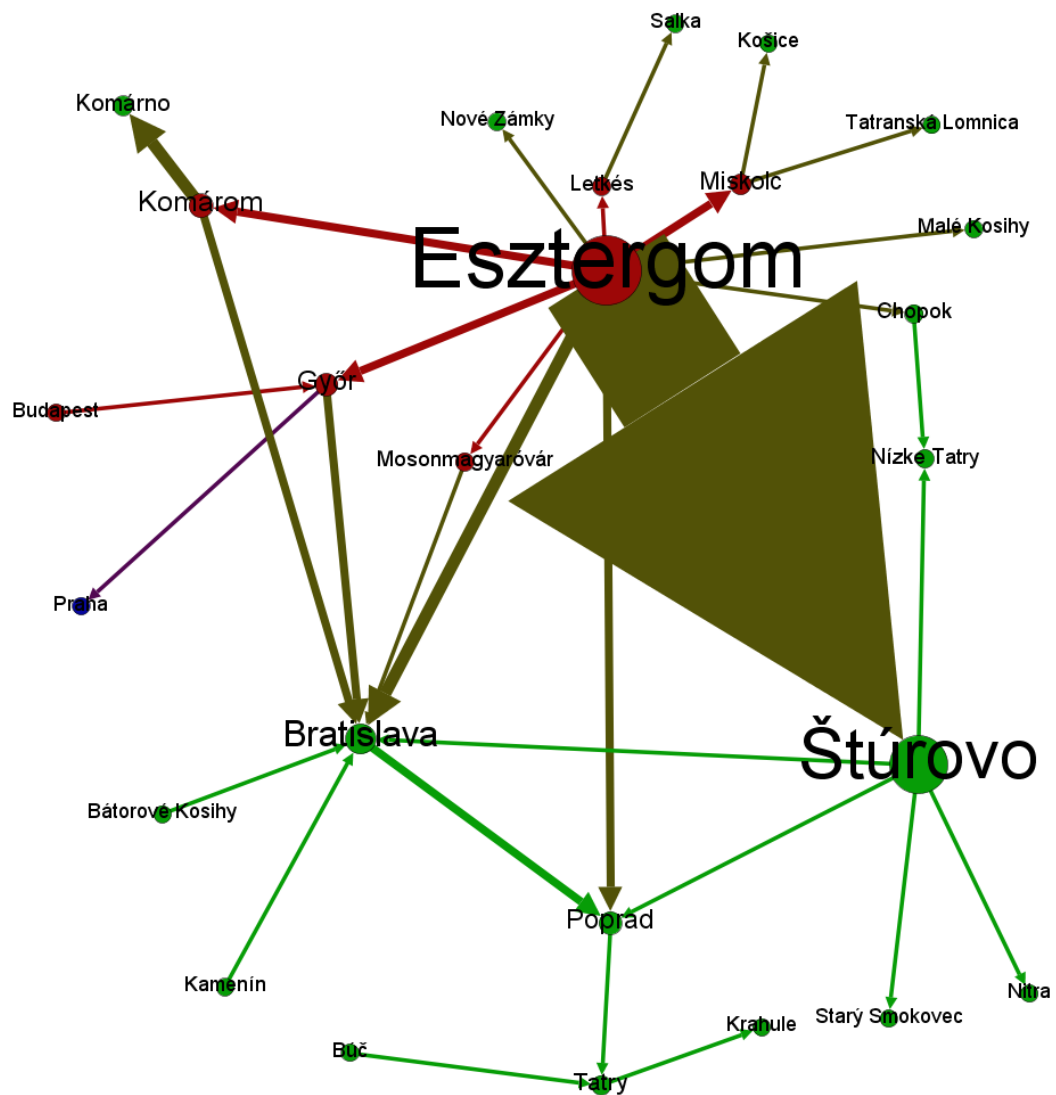
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Appendix

Figure 15: Routes taken by Esztergom respondents⁶



⁶ The position of the settlements on Figures 15 through 18 does not reflect their geographical location.

Figure 16: Routes taken by Mosonmagyaróvár respondents

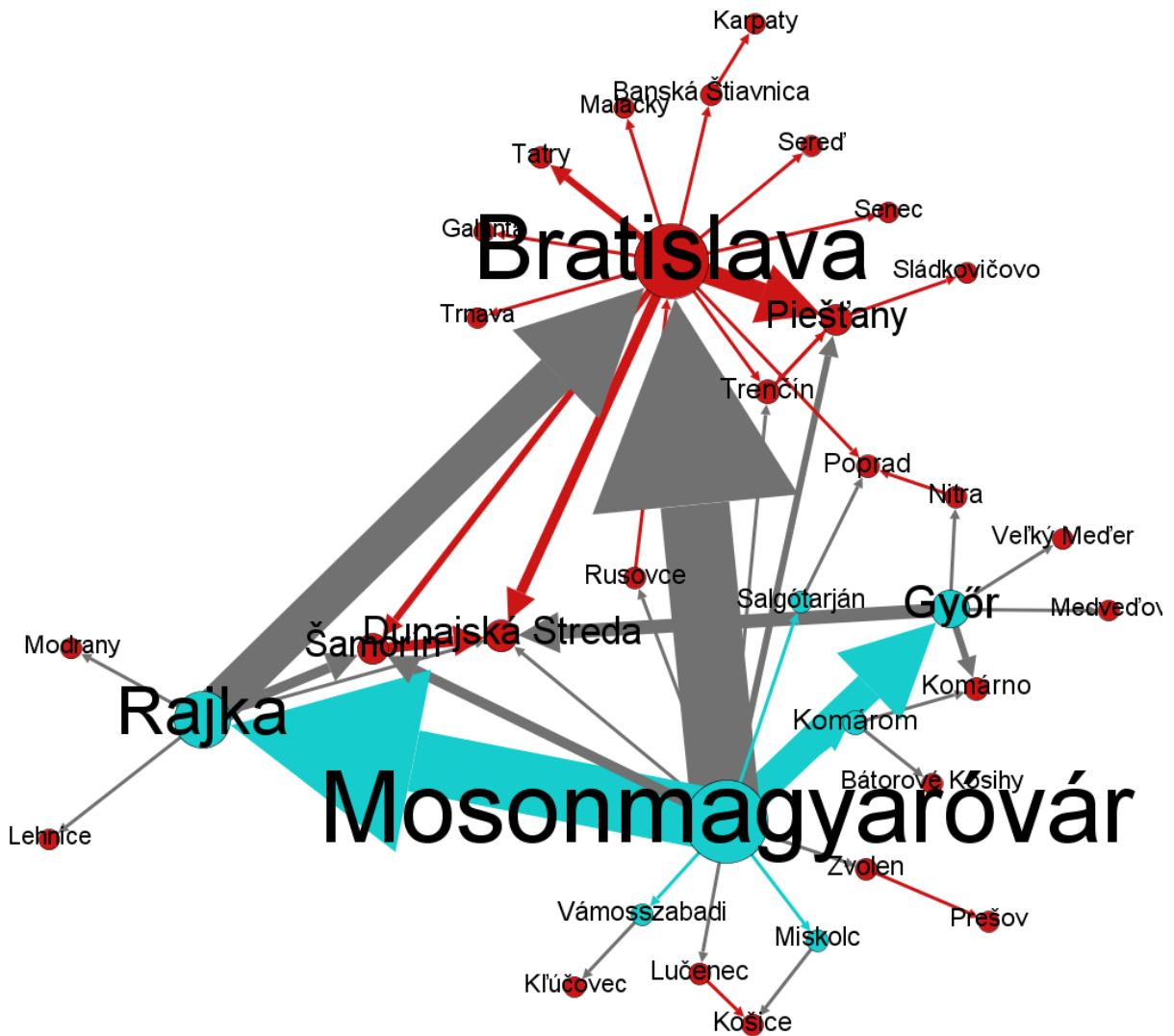


Figure 17: Routes taken by Štúrovo respondents

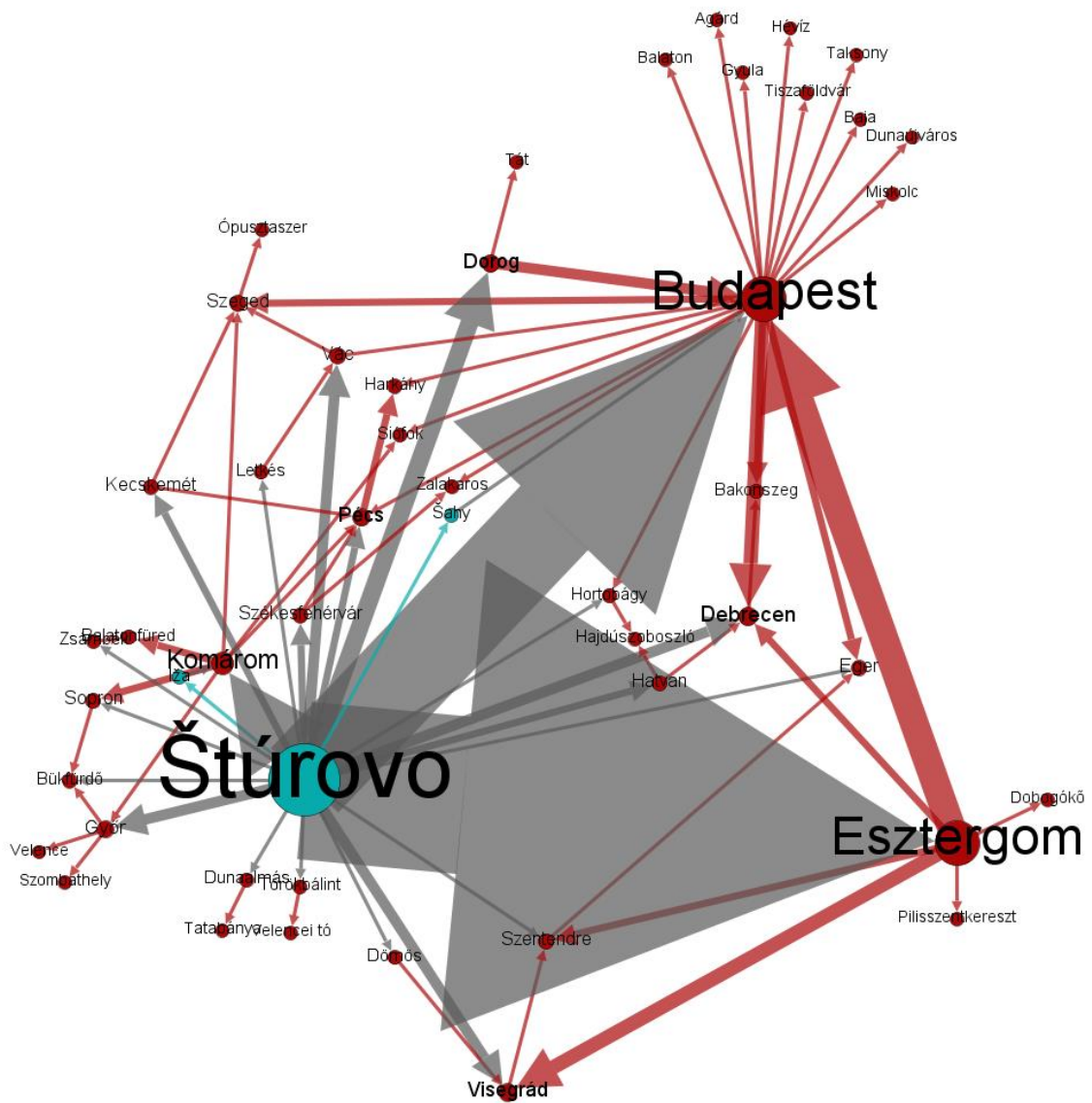


Figure 18: Routes taken by Šamorín respondents

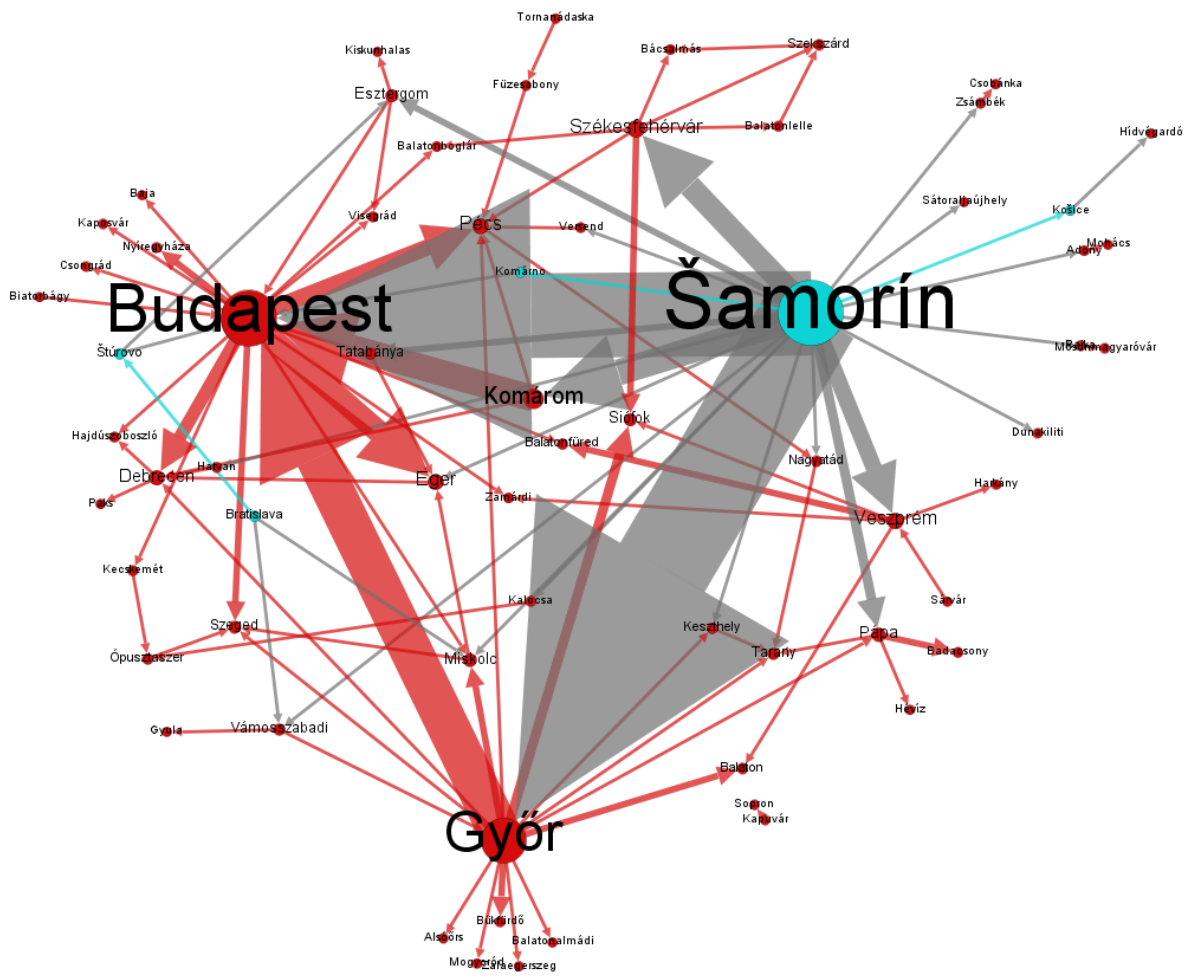


Figure 19: The variables of neighbouring country relations in the Spearman-correlation, in Esztergom



Figure 20: The variables of neighbouring country relations in the Spearman-correlation, in Mosonmagyaróvár

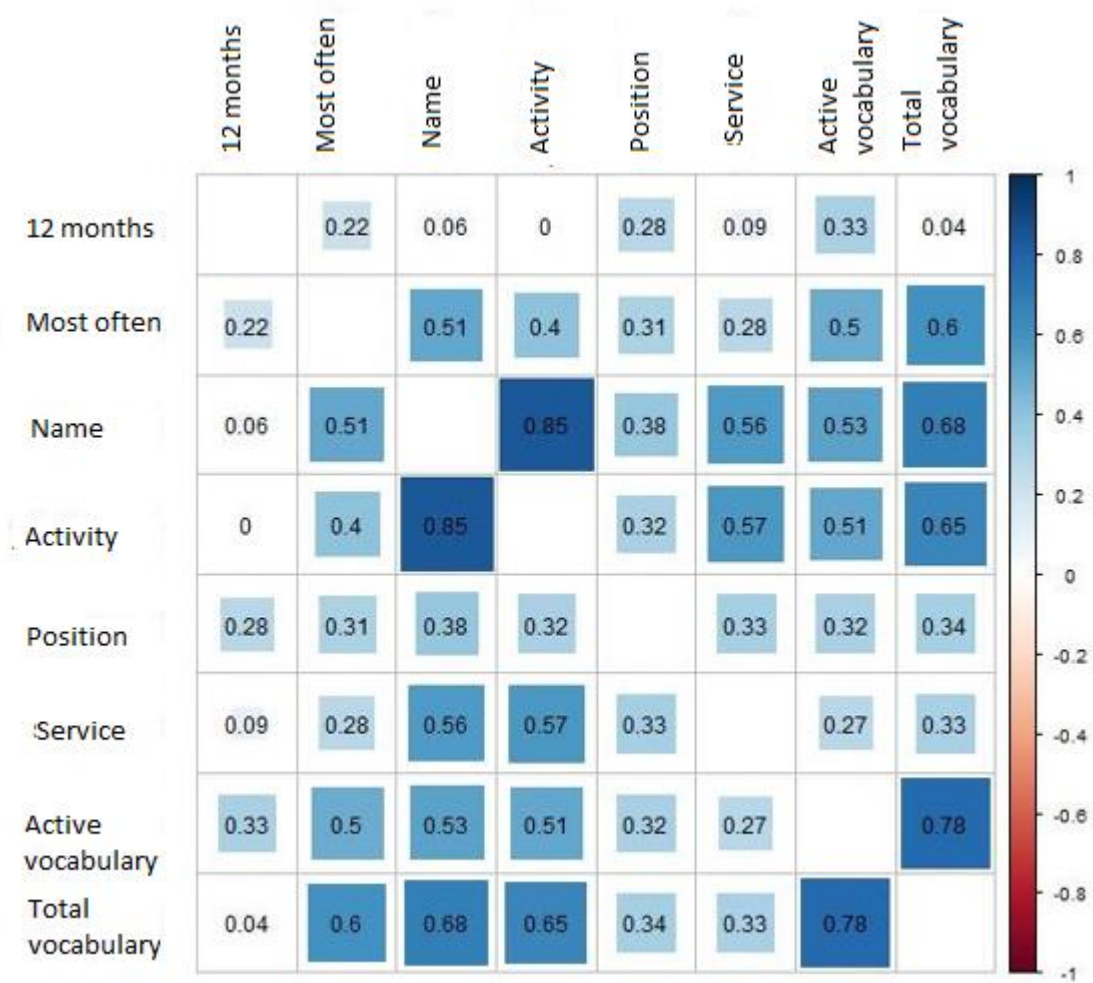


Figure 21: The variables of neighbouring country relations in the Spearman-correlation, in Štúrovo

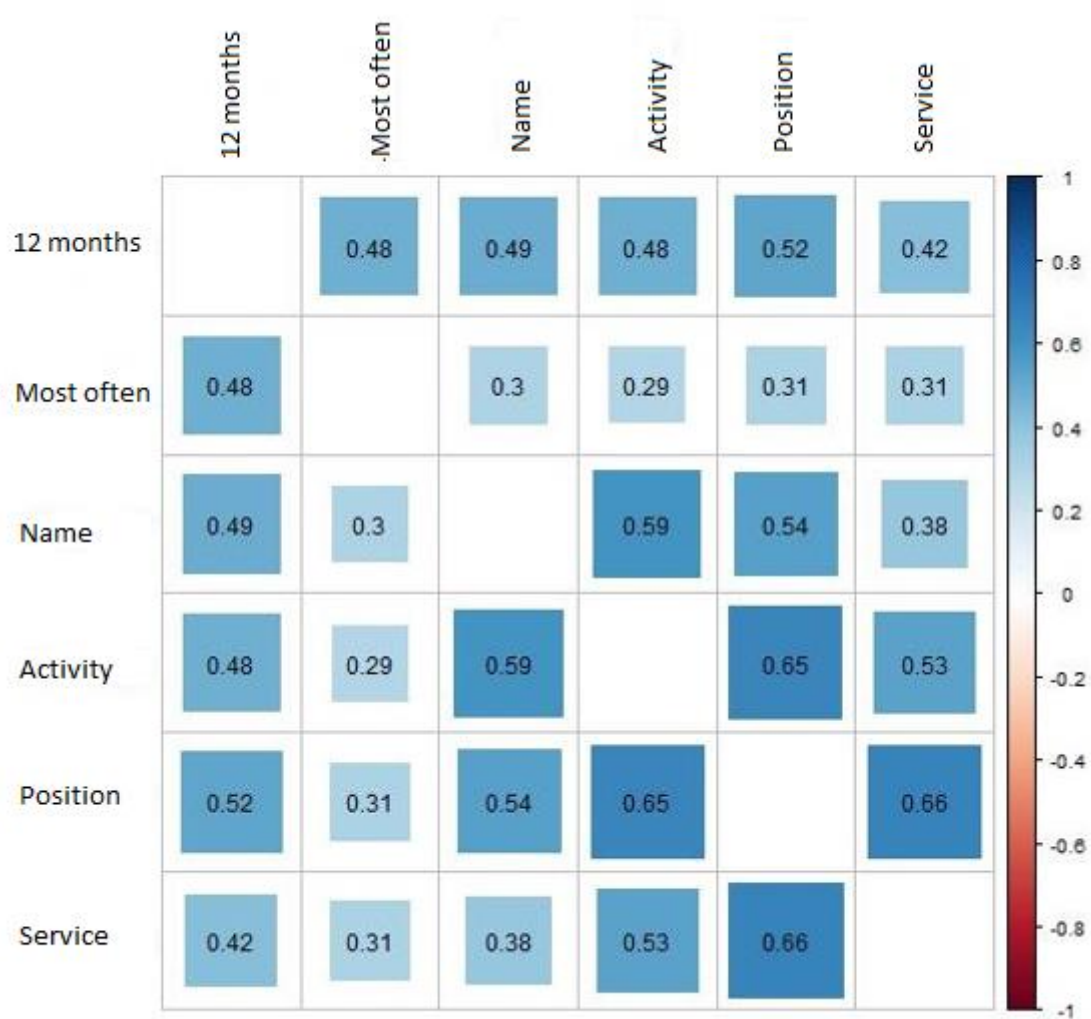


Figure 22: The variables of neighbouring country relations in the Spearman-correlation, in Šamorín

