

Urban growth and language shift in county seats in Transylvania between 1900 and 2011

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Romania was characterised in the 20th-century by urban revolution. Urban growth was more pronounced in the time of socialism, when the present network of regional poles and sub-regional centres was formed. This rapid expansion also gave rise to a number of social, economic, and urban challenges. The urbanisation process in Transylvania, Partium, and Banat led to linguistic, ethnic and cultural changes. As of 1920, the Romanian language steadily gained ground in centres where the dominant language used to be Hungarian and German. Apart from two smaller groups, the process of language shift can be considered by now almost complete in most county seats. However, it did not take place in two current county seats, while some others still function as bilingual towns.

Introduction

Centrally located multifunctional towns are typically the most dynamically developing elements of the spatial structure. They serve as diffusion centres of social and economic changes. Innovations in social changes, production, infrastructure, economic and financial activities, as well as services, reach the region through these centres. These urban development poles served in East-Central Europe, where some historical regions are multi-ethnic and multilingual, as diffusion centres for the transformation of the ethnic landscape. This can be observed in every multilingual region, even when urbanisation is quasi-spontaneous. It is particularly true for the decades of the socialist planned economy, when centrally controlled and forced industrialisation (Kőszegfalvi 2020), and concentration of resources paved the way for a politics of intentional Romanian nation-building and cultural homogenisation (Kocsis–Tátrai 2015). This artificially accelerated urbanisation changed the traditional cultural image of Transylvanian cities. With the controlled population movement among regions, the socialist urban development artificially achieved a change in the linguistic and ethnic landscape of large cities over just one human lifetime. In such cities, there is a danger of the population drifting away from their historical heritage, and they not feeling ownership of the historical and cultural heritage of their place of residence. The connection between

the city and the catchment area breaks or changes, and the inner ring of the catchment area itself changes over time through the process of suburbanisation. These changes adversely affect the Hungarian and German communities, who were the majority population once but now they live as minority groups.

Methods

Our research is a follow-up on previously published case studies which investigated ethnicity and language shifts in towns or smaller groups of towns. In the case study focusing on three county seats in Partium (Oradea/Nagyvárad, Satu Mare/Szatmárnémeti, Zalău/Zilah), we also devised a model of ethnicity and language shift (Süli-Zakar–Szilágyi 2015) based on the unfolding events in these three towns. An individual case study published in the same year presents the process of ethnic shift in Baia Mare/Nagybánya and its agglomeration (Szilágyi 2015).

While conducting these case studies, it became evident that apart from its local specificities, ethnic shift follows a universal pattern, which is most probably applicable to all county seats in the regions of Transylvania, Partium, and Banat. Consequently, we hypothesise that the previously published language shift model applies to all county seats, and at least partially to towns which functioned as centres for a certain period in the 20th century. The current study, which investigates all former and current county seats at the same time, allows for only a limited number of indicators. Fundamentally, we focus on two indicators: (absolute and relative) population change in county seats, as well as the proportion of the Romanian population.

The period under scrutiny is the 111-year period between the 1900 and the 2011 censuses. Censuses, which differ in both methodology and indicators employed, represent the source of our data. The 1900 and 1910 Hungarian censuses provide data on mother tongue (KSH 1912), the 1920, 1941¹, and 1977 censuses provide data on ethnicity, while the 1930, 1941², 1956, 1966, 1992, 2002, and 2011³ censuses provide data on both mother tongue and ethnicity. Acknowledging the critical analysis of some historical censuses (Varga 1993, 1988) and given the lack of more accurate data, we accept the results, even though the presence of evident anomalies in some cases clearly show that the data are not reliable. On the whole, despite such cases, we consider that the trends represent reality.

Our study focuses on language shift and on how Romanian language gained ground. Consequently, we have relied on mother tongue data, where available, (nine datasets in Northern Transylvania, eight in Southern Transylvania), and have also

¹ Pertaining to Southern Transylvania.

² Pertaining to Northern Transylvania

³ For mother tongue and ethnicity, in the case of the 2011 census, we considered the data of the preliminary results since the final results contained large numbers of absent population, the structure of which is not known; this would have significantly distorted the linguistic distribution of the sample (Recensământ 2011a, b).

considered data on ethnicity in two or three cases (depending on the region). We tested substitutability on our sample size of 30, in three cases, where both datasets (ethnicity and mother tongue) were available (1930, 1966, 2002). Our findings reveal a strong correlation between the two datasets, Romanian ethnicity and Romanian mother tongue (1930: $\text{cor}=0.9976$; 1966: $\text{cor}=0.9998$; 2002: $\text{cor}=0.9999$; p-value is insignificant in each case), which leads to our substitutability hypothesis.

We formulated three research questions:

- Is there a statistical relationship (correlation) between the duration of functioning as a centre and the pace of urban growth? That is, is there statistical proof that public administration reforms and the frequent modification pertaining to county seats have been indirectly subjected to the development policy objectives of the given time period?
- Is there a statistical relationship between the previous two indicators and the growth of the Romanian population?
- Is there a representative (typical) case of language shift?

The historical milestones in the present study are marked by the dates of political transitions (1920, 1940, 1945/47, 1989/90), censuses (1900, 1910, 1920, 1930, 1941, 1956, 1966, 1977, 1992, 2002, 2011), and public administration reforms (1920, 1926, 1940, 1950, 1952, 1956, 1960, 1968 (LAW 2/1968)). Besides major turning points, the most interesting period of urban development is the time of planned economy and systematisation of settlements, when radical changes were implemented, which had a definitive influence on the formation of the current Romanian settlement network (Steven 1984, Szilágyi 2012). In addition to establishing county and regional poles, it has caused obvious damages resulting from the physical or cultural changes effectuated in the settlements. The process would have culminated in the village demolition programme, albeit the systematisation of rural settlements had started much earlier (Defourd–Baucher 1977); fortunately, this process was not completed.

Urban development is characterised by ethnic and linguistic changes in all periods of time. Before the Treaty of Trianon, these formed mostly part of spontaneous processes, but there were, of course, settlement programmes, too, at that time (e.g. Luduş/Ludas, Deva/Déva) (Beraru 2015) aimed at increasing the proportion of Hungarian language (Szekeres 2001).

After the Treaty of Trianon, the process, obviously, if not explicitly, became one of the top priority public policies in Romania and this also holds true for Northern Transylvania for the short 4–5-year period of Hungarian government. The transformations clearly show that following the establishment of the new boundaries in 1920, the main priority became the changing of the linguistic component of large towns located close to the border area, and that of strategically significant centres (Cluj-Napoca/Kolozsvár, Braşov/Brassó). After World War II, between 1950 and 1968, the focus was primarily on region centres. As of 1968, it shifted mostly to county seats and new industrial zones and centres. At that time,

the process also started in major towns in Székely Land. While the main goal before World War II was to establish a Romanian population similar in size to the Hungarian/German population in towns of significant importance, the priority shifted in the second half of the 20th century to gaining a majority status in this respect. By the end of the 20th century, the formation of the ‘quasi-homogeneous’ linguistic majority was completed spontaneously through the processes launched earlier. Through the functions related to urban development, the central role became a tool for transforming the ethnic and linguistic composition of towns.

Between 1940 and 1945, when Hungary held Northern Transylvania, the process of language shift was interrupted for a short time in this region and a reversal took place. On the other hand, the migration of Hungarians accelerated the process of ethnic shift in Southern Transylvania, which remained under Romanian authority (L. Balogh 2003). Another major factor was the Holocaust, since the disappearance of the mostly Hungarian-speaking Jews from 1944 and after, prepared the way, in both physical and a figurative sense, for the rise of the Romanian language. This was especially true for towns such as Sighetu Marmăției/Máramarossziget, but for all county seats in Northern Transylvania to a greater or lesser extent.

The emigration of the German speaking population (Saxons, Swabians, Zipsers) between 1970–1992 was a similarly important factor since Germans constituted the majority of the population in one-sixth of the 30 towns under scrutiny at the beginning of the 20th century. By the 1977 census, Romanians became, without exception, the majority in these towns (Varga 1992). Nonetheless, autochthonous German communities were still serious factors in terms of language and culture until the 1980s.

In the 111-year period examined in this study, the process of language shift in the Transylvanian county seats typically starts from a Hungarian/German dominant default position and transforms into a dominant Romanian town with declining minority groups. The direction of development is always the same. However, there are differences in terms of the starting phase for each town and the extent to which they engage in this process in the 111-year time frame.

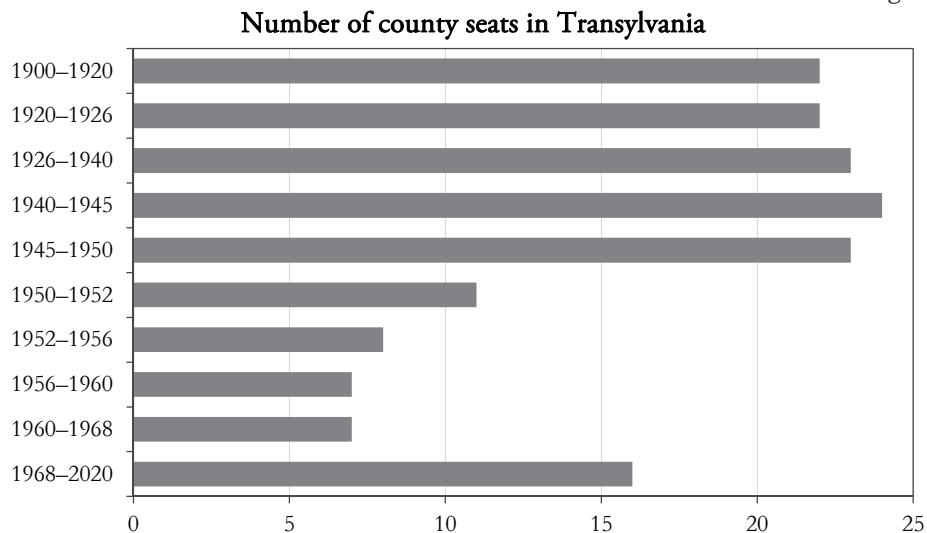
The obvious change in the ethnic composition is also a result of this development path. Before the Treaty of Trianon, the Hungarian language was substantially overrepresented in towns compared to rural areas. At present, rural areas constitute the language hinterland and towns with a Hungarian majority are located within the linguistic area of a Hungarian speaking majority.

The towns under scrutiny: Administrative boundaries

This study investigates towns situated in the Transylvania, Partium and Banat regions, which functioned as administrative seats between the 1900 and 2011 censuses, *in a territory taken from Hungary and added to Romania as defined by the Treaty of*

Trianon (1920) (Hajdú 2020). From the viewpoint of administration history, the timeframe can be divided into 10 periods (Elekes–Gyenizse 2014): Hungarian county system between 1900 and 1920, integrated county system in Romania between 1920–1926, modified Romanian county system between the two World Wars (1926–1940), the period of World War II (1940–1945), the rehabilitated Romanian county system (1945–1950), the four periods of the regions (1950–1952, 1952–1956, 1956–1960, 1960–1968), and the present-day Romanian county system (since 1968), which encompasses the longest period (Politică 1969, Elekes 2011, Szilágyi 2013). During these periods, the number of administrative units and seats fluctuated between 7 and 24; today, there are 16 (see Figure 1). Altogether, we identified 30 towns that held an administrative function in the study period. However, only six functioned as seats throughout the entire period: Braşov, Cluj-Napoca, Deva, Oradea, Târgu Mureş/Marosvásárhely, and Timişoara/Temesvár. These are typically large towns, regional centres, apart from Deva, which is still a medium-sized town.

Figure 1



Source: Szilágyi (2013).

Caransebeş/Karánsebes (2 years) and Beiuş/Belényes (5 years) held this function for the shortest period of time. Among the 30 towns, there are two smaller ones (Beiuş/Belényes and Oraviţa/Oravicabánya), the population of these is barely above 10,000. A total of three significant, mid-sized towns of Transylvania (Mediaş/Medgyes, Hunedoara/Vajdahunyad, and Petroşani/Petrozsény) were excluded from this study as these did not held an administrative function. Despite these anomalies, the study encompasses almost flawlessly the towns of a considerable size and with polarisation ability in Transylvania, Partium and Banat.

Administrative history periods

Following the 1920 Treaty of Trianon, the number of counties added to the Romanian territory did not change. Some fragmented counties merged with adjacent larger units: the southern part of Ugocsa merged with Satu Mare/Szatmár, the settlements of Csanád with Arad, while Torontál merged with Timiș/Temes (Szilágyi 2013). Thus, the number of county seats did not change. Nonetheless, the Romanian administration implemented two changes. Given its central location and larger size, Satu Mare became the county seat instead of Carei/Nagykároly. Similarly, the county seat of Alba/Fehér county was moved from Aiud/Nagyenyed to Alba Iulia/Gyulafehérvár; the latter change probably had a symbolic meaning (National Assembly in 1918) and linguistic reasons (Alba Iulia was characterised by Hungarian and Romanian language parity, as opposed to a Hungarian majority in Aiud).

The first substantive administrative reform took place in 1926 when changes were made and Caraș-Severin/Krassó-Szörény county was divided in two⁴; thus, the number of county seats increased by one (Oravița). In Târnava Mică/Kis-Küküllő county, which was extended to the west, the seat moved from Târnăveni, which was predominantly Hungarian ethnic space, to a more peripheral location, the newly added Blaj/Balázsfalva, which held a Romanian majority. We can also attribute a symbolic meaning to this change since the new location was the site of the 1848 assembly, which relates to the unfolding of the Romanian national movement in Transylvania.

The reattachment of Northern Transylvania to Hungary in 1940 brought forth one short-term change related to the number of administrative units and seats. Bihor/Bihar county, which had been cut in half, remained an independent administrative unit on both sides of the border. Consequently Beiuș, became a county seat. This is when county seats reached their maximum number (24). The situation before 1940 was restored between 1945 and 1950 (Szilágyi 2007, Elekes 2016).

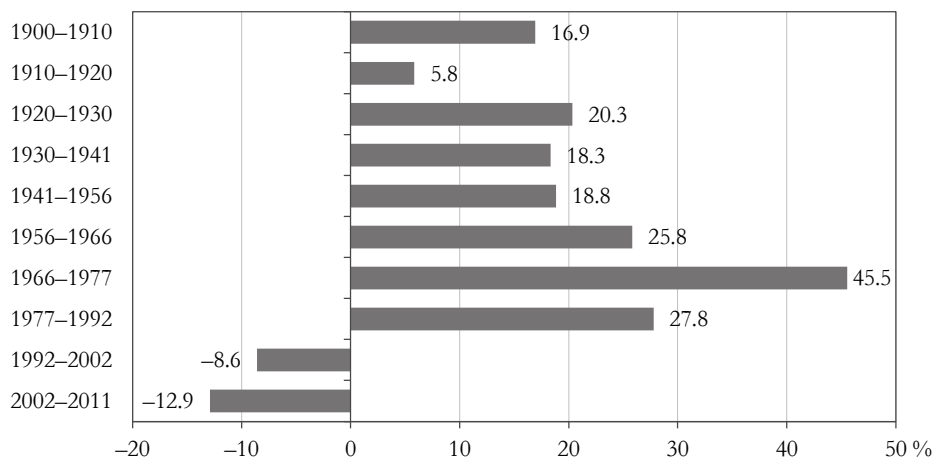
The number of administrative units (and centres) dropped dramatically after 1950, when the new Soviet-type administration was introduced. This new system was characterised by continual changes. Between 1950 and 1952 the number of administrative units in Transylvania was 11. It dropped steadily, first to eight and later to seven. Some regional poles managed to keep their functions as centres (e.g. Brașov, Cluj-Napoca, Timișoara, Oradea and Târgu-Mureș, see Annex Figure A1), while other significant centres lost their function (e.g. Arad, Satu Mare, and Sibiu/Nagyszeben). At the same time, the system started building the new poles of

⁴ The Hungarian administration united the two counties in 1880. Earlier, the seat of Caraș was Lugoj, and Caransebeș was the seat of Severin. In 1880, Lugoj became the centre of the united county. The 1926 Romanian decision divided the county in a different way. Lugoj, which used to be the seat of Caraș, became the centre of Severin county, while Oravița became the seat of Caraș county. Caransebeș, the former county seat, did not regain its function (Szabó 1999).

socialist development (Elekes 2008) at a heightened pace (e.g. Baia Mare, Deva, Hunedoara, Reșița, etc.). There is a significant difference between the growth rates of the two groups even in the case of towns that functioned as centres. For example, as a traditional centre, the size of the population of Cluj-Napoca increased by 20% between 1955 and 1966, while in Baia Mare, which was considered a socialist town, it increased by 71%, and by 58% in Deva (see Figure 2).

Figure 2

Population increase in county seats in Transylvania in the census intervals



Sources: Varga (1988), Kocsis et al. (2006), Kocsis–Tátrai (2015) (Data of Hungarian census in 1900, 1910, 1941, Romanian census 1930, 1941, 1956–2011, and the National Statistical Institute in Romania; insse.ro).

The most dynamic growth period started with the reintroduction of the county system. The growth rate between 1971 and 1991 is unquestionably outstanding compared to other former socialist countries (Zdanowska et al. 2020)⁵. In addition to the fast-paced development, the number of units also increased to 16. Between 1966 and 1977, in a period of 11 years, the population of the county seats increased on average by 62%, which was significantly more than the 27% average growth rate of towns deprived of their function. There are also significant differences in the growth of the 16 county seats, given that those with a small population size in the initial stage increased to a larger extent. The population of Zalău, Deva, and Miercurea Ciuc/Csíkzereda doubled⁶, while that of Arad and Oradea increased by

⁵There was a weak connection between Romanian towns and European city networks. The Vienna -Bratislava - Győr-Budapest type of interconnection (Rechnitzer et al. 2019) was non-existent.

⁶'Demonstrating the relevance' of the developments implemented by the new administrative system could also have played an important role among the factors influencing the strong growth of county seats. This facilitated the dynamic and spectacular growth of new county seats. The 'positive effects' of the abortion law were tangible primarily in settlements with a younger population (county seat function → strong industrialisation → massive immigration of young people → increased birth rates).

only 35–40%. In the case of the latter two, their strategically unfavourable position (on the border) also played a role. The growth rate decreased significantly between 1977 and 1992 (by 42% in the case of active county seats, and by 18% in those deprived of their function), which was also influenced by the sudden migration of population in the era of political transition (e.g. emigration of Germans, Hungarians, and Romanians). Zalău experienced the greatest increase, at 114%, while Arad, Sibiu, and Reșița, inhabited by a significant number of Germans or Hungarians, increased by only 10%.

The events of 1989 represent a significant turning point in population growth as the population has been declining in every town since 1992. Between 1992 and 2002, due to the declining socialist industry, emigration abroad, suburbanisation, demographic factors, and so on, the investigated towns lost on average 10% of their population, and there was no significant difference between towns with an active or a discontinued administrative function. More important losses occurred in industrial towns (Brașov, Reșița, Făgăraș, Târnăveni), as well as border towns inhabited to a larger degree by minorities (e.g. Satu Mare, Carei). In these towns, the population loss was considerably above 10%. Innovative large towns, with a regional function (Páthy 2017) had a better population retaining ability (Cluj-Napoca –3.2%, Timișoara–4.9%). These towns also came closely together in the size clusters classification (see Annex Figure A2).

Between 2002 and 2011, there was a revival of earlier trends, with an average drop of 13% in this 9-year period. In the case of active seats, the decrease was even slightly above the average. Former county seats can be found on the two extremes. They are present among both the fastest declining and also among the most stable ones. A total of seven towns saw a decrease of over 20% in nine years (all, except one, were industrial towns deprived of their county seat function: Caransebeș, Târnăveni, Aiud/Nagyenyed, Turda/Torda, Făgăraș, plus the isolated Oravița no longer considered important). The active county seats are represented by Reșița in this group. The group of towns with a loss under 10% contains both active and former centres. In Cluj-Napoca (–2.8%) and Timișoara (–4.2%), which had a regional function, the population decline was only statistical as there was exponential growth in the suburban areas. Another town in this group is Miercurea Ciuc, the most Hungarian county seat, alongside some other small towns, which saw only a moderate-pace development: Blaj, Beiuș, and Odorheiu Secuiesc/ Székelyudvarhely.

Population balance

1900–1956: Among the ‘winners’ of the first half of the 20th century, we find the county seats positioned at the top of the settlement network: Brașov, Cluj-Napoca, Târgu Mureș, and Sibiu, which all saw a threefold population increase between 1900 and 1956. This was accompanied by smaller centres, which did not function as

centres throughout the entire 20th century but were characterised by a relatively dynamic growth in the first half of the century (doubling their population). For example, Târnăveni, Baia Mare, Turda, Sfântu Gheorghe/Sepsiszentgyörgy, Făgăraş, Reşiţa, Deva, and Caransebeş. Towns deprived of their function later dropped out from the group of the most rapidly developing towns.

1900–2011: On balance, the thirty towns showed a substantial increase in the average population, that is, a nearly fourfold growth over the period. If it had not been for the forced increase in the decades of communism, this growth would not have taken place (Bartke 2020). Considering the entire period, nine towns experienced growth between 500–800%. Baia Mare experienced an eightfold population increase, the largest increase. It occupies a distinct position even amongst the group of towns with an outstanding growth in population (see Annex Figure A3). The previously moderate growth of Baia Mare, Deva, and Târgu Mureş was accelerated by the provincial period (1950–1968) and the exponential expansion of the subsequently reintroduced county system (1968). Braşov, Cluj-Napoca, and Timişoara profited from the continuous investment in towns with a privileged status. The growth of the third group (Sfântu Gheorghe, Miercurea Ciuc, and Zalău) can be attributed exclusively to their county seat rank after 1968, and the relatively small population size before that. In terms of entire population balance, we find only one former county seat at the bottom of the list with negative population balance for the 111-year period, Oraviţa (–27%)⁷. Above this, we find three towns, two of which had been deprived of their function before 1920 (Carei, Aiud), while this event occurred later (1950) in the case of the geographically isolated Sighetu Marmaţiei (Szilágyi 2017).

R software was used to investigate the degree of relationship between the duration of the county seat function and the growth rate (population balance) of the towns under scrutiny. The two indicators show a significant correlation (cor=0.68; p-value is insignificant), while linear regression results indicate that the duration of the central function accounts for the population balance to 47% ($R^2=0.47$; p-value is insignificant). It can be concluded that there is a significant correlation between the two factors, which confirms the hypothesis of our first research question.

Linguistic features of the towns under scrutiny

It should be noted that we investigated the 30 towns and their population growth considering their current administrative boundaries. We have relied on Árpád Varga's (2004) census database, which follows this principle. This approach eliminates the distortions stemming from the peculiarities of the Romanian territorial administration, according to which more settlements form a municipality, and following some administrative reforms the towns under scrutiny would be open

⁷ Regarding the development/decline of small towns, see Atkinson (2019).

to different interpretations. Since we have considered the current territorial division from the onset, in the case of the censuses before 1968 (which took other, more restricted administrative boundaries into consideration), there are discrepancies between the data used in our analysis and that of these censuses. At times, settlements added to towns would become integrated parts and could not even statistically be separated from the centre⁸. However, an extensive number of individual settlements are physically and statistically independent elements of the settlement network and belong only administratively to the town⁹. These interconnections were formed typically in the 1950s and apart from a few exceptions, they were finalised in 1968 (Szilágyi 2009). The data of both categories were also integrated retroactively in the population size. These administrative interconnections not only increased the size of the population statistically but also influenced its ethnic composition (e.g. in the case of Satu Mare, or Zalău Romanian settlements were added to the Hungarian majority urban core) (Süli-Zakar–Szilágyi 2015, Szilágyi 2019). The influence of this system on the linguistic composition is well illustrated by the fact that in 1900, among the 30 towns, there were seven in which a relative majority were Romanian native speakers (Alba Iulia, Blaj, Caransebeş/Karánsebes, Făgăraş, Lugoj/Lugos, Oraviţa, and Târnăveni). However, if we analyse the centres without the settlements added (later) to their administration, we find that in 1900, only Caransebeş and Blaj had an actual Romanian speaking majority¹⁰. In 1900, Hungarians represented an absolute majority in Târnăveni, while in Făgăraş and Alba Iulia, they represented a relative majority. In Oraviţa, the Germans were in absolute majority, while in Lugoj, they were in a relative majority (Kókai 2020).

The number of towns with a Romanian majority was the lowest in 1910: six towns (with an absolute majority in Alba Iulia, Beiuş, Blaj, and Oraviţa, and a relative majority in Caransebeş and Lugoj). This corresponds to 20% of all towns included in our study and it typically contains those with a small population size.

⁸ **Arad:** Aradu-Nou, Micălaça, Mureşel, Sănnicolau-Mic. **Baia Mare:** Ferneziu. **Blaj:** Blaj-Sat. **Caransebeş:** Caransebeşu-Nou. **Cluj:** Mănăştur, Someşeni. **Făgăraş:** Galaţ. **Miercurea-Ciuc:** Cioboteni, Şumuleu, Jigodin, Topliţa-Ciuc. **Odorheiu Secuiesc:** Beclean, Cădişeni. **Oradea:** Episcopia Bihor, Podgoria, Seleuş. **Oraviţa:** Oraviţa-Română. **Reşiţa:** Resicafalu. **Sibiu:** Guşteriţa, Turnişor. **Târnăveni:** Boziaş. **Timişoara:** Freidorf, Fratelia, Mehala. **Turda:** Oprişani, Poiana. **Zalău:** Ortelec.

⁹ **Alba Iulia:** Bărabanţ, Miceşti, Oarda, Păclişa. **Aiud:** Aiudul de Sus, Ciembrud, Gâmbaş, Gârbova de Jos, Gârbova de Sus, Gârboviţa, Măgina, Păgida, Sâncrai, Țifra. **Baia Mare:** Blidari, Firiza, Valea Neagră. **Blaj:** Deleni-Obârşia, Fliteşti, Izvoarele, Mânărade, Petrisat, Spătac, Tiur, Veza. **Beiuş:** Delani. **Bistriţa:** Ghinda, Sărata, Sigmir, Slătiniţa, Unirea, Viişoara. **Braşov:** Poiana Braşov. **Caransebeş:** Jupa. **Oraviţa:** Agadici, Brădişoru de Jos, Broşteni, Cioclova Montană, Marila, Răchitova. **Carei:** Ianculeşti. **Dej:** Ocna Dejului, Peştera, Pintic, Şomcutu Mic. **Deva:** Archia, Bârcea-Mică, Cristur, Sântuhalm. **Lugoj:** Măguri, Tapia, Armădia. **Miercurea-Ciuc:** Ciba, Harghita-Băi, Jigodin-Băi. **Reşiţa:** Călnic, Cutoare, Doman, Moniom, Secu, Țerova. **Satu Mare:** Sătmărel. **Sfântu Gheorghe:** Chilieni, Coşeni. **Sibiu:** Păltiniş. **Sighetu Marmăci:** Iapa, Lazu Baciului, Şugău, Valea Cufundoasă, Valea Hotarului. **Sighişoara:** Angofa, Aurel Vlaicu, Hetiur, Rora, Şoromiclea, Venchi, Viilor. **Târgu Mureş:** Mureşeni, Remetea. **Târnăveni:** Bobohalma, Botorca, Cuştelnic. **Zalău:** Stăna.

¹⁰ Blaj and Oraviţa did not have a town status at the time.

The centres characterised by dynamic growth were usually Hungarian or German speaking towns (Demeter 2020, Péntes 2020). The 20% proportion increased with each census. Not even the World War II border change affected significantly the spread of the Romanian language (Szilágyi–Elekes 2020). Although it temporarily reversed the phenomenon in Northern Transylvania (Kocsis 2013), it accelerated it in the south. At present, we can find a Romanian majority in 26 out of the 30 towns, that is, in 86.7% of our sample. The four towns with a Hungarian majority (Carei, Miercurea Ciuc, Odorheiu Secuiesc, Sfântu Gheorghe) belong to the group of small and medium-size towns¹¹. In 1977 and 1992, Hungarians still represented a majority in Târgu Mureş, which was the last Hungarian-majority large city with a population of more than 100.000, where the Hungarian-Romanian parity ratio changed only by 2002. If we consider not only the majority but also the percentages, we will find a linear growth in the number of Romanian native speakers in almost all towns. There is only one exception, Odorheiu Secuiesc, which is an atypical case. However, it is unquestionable that after 1992, all towns with a Hungarian majority show a deceleration of the earlier trends. Furthermore, between 2002 and 2011, the Hungarian-Romanian ethnic and linguistic ratio stabilised (Benedek et al. 2018; Elekes–Szilágyi 2020). There was a minor regression in Târnăveni as well towards the end of the period considered, where we find the dissimilation of the Romani population.

To quantify the process of language shift we relied on the Romanian language percentage data for each census. We investigated the relative increase between the starting and end point of our analysis (%). We examined the qualitative classification of towns for each period, and the cluster classification of towns functioning as centres (see Annex Figure A4).

Our definition of relative increase is the difference between the proportion of the Romanian language at the onset and end point of our analysis. Typically, we obtain high values if the difference is greater than 50 percentage points for half of the sample. In the case of two towns, it even exceeds 70% (Timișoara, Sibiu). As a rule, these are developed, attractive towns, which were inhabited by a German majority at the beginning of our analysis period and where Romanian became not only dominant in the 111-year period, but, due to the unfortunate historical events, German practically disappeared from everyday life, apart from a few symbolic areas (Bakk 2015) (central German school, museums, the church and local politics). With values between 60–70%, we find large towns that used to have a Hungarian majority (e.g. Arad, Cluj-Napoca, and Oradea). These towns still have a strong minority

¹¹ The rate of 86.7% was already present in a slightly different way, in 1977, when the census showed a Romanian majority in Carei. This obviously did not correspond to reality since it was refuted by Romanian censuses conducted at a later date, after the political transition, when several thousand Hungarians (Kincses–Bálint 2016) and Swabians had left the town and its surrounding area.

group; however, the dominance of the Romanian language is unquestionable. Next is Sighetu Marmăției, which lost its (Yiddish-Hungarian bilingual) ethnic majority during the Holocaust. Smaller towns with a significant Romanian population at the onset are to be found in the second and last third of the list (Caransebeș, Beiuș, Aiud, Alba Iulia, Târnăveni, Blaj, Oravița) ahead of those three towns, where the Romanian language grew stronger statistically but does not predominate in the local community (Odorheiu Secuiesc, Miercurea Ciuc, Sfântu Gheorghe).

We have classified Romanian communities at the beginning and end of the investigated time frame according to six language stages: dispersed (under 10%), minority (10–30%), parity minority (30–50%), parity majority (50–70%), strong majority (70–90%), and ‘monopolistic’ (over 90%). In 1900, Romanian was in the dispersed language stage in 20% of the towns, the second (minority) and third category (parity minority) each contained one third of the towns. The fourth stage (parity majority) was present in four cases, while the fifth (strong majority) was present in one case, in Oravița, which had village status at the time. However, in 2011, Romanian is a ‘monopolistic’ language in more than one third of the towns (11), a stage which was non-existent in any of the towns in 1900. In almost half of the towns (13), Romanian holds a strong majority position. The stage of parity majority can be found in only two towns (Satu Mare and Târgu Mureș), parity minority in one (Carei), minority in two towns (Miercurea Ciuc and Sfântu Gheorghe), and the dispersed stage is present only in Odorheiu Secuiesc.

We have identified three towns that have advanced four steps in the qualitative classification: Sibiu and Bistrița, which used to have a German majority, and Oradea, which used to have a Hungarian majority. Nearly half of the sample (14) shifted three categories, while more than a quarter (8) shifted two categories. In the case of four towns, we can observe a minimal shift (2 of them are the Hungarian majority county seats in Székely Land), and Odorheiu Secuiesc is the only element that did not move category.

Based on the language shift balance, the population can be divided into two main clusters and two sets (1–4) of subclusters (see Annex Figure A4). In subclusters 1 and 2, the process of language shift can be considered completed. In group 1, Romanian language has shifted from strongly subordinated to a dominant position. In group 2, it already had a significant role at the onset. Although clusters 3 and 4 shifted in the direction of language replacement, the process reached different stages in the two groups. In subgroup 3, the use of Romanian language is limited to certain areas of life and it cannot be considered dominant. In subgroup 4, Romanian dominates in some areas (e.g. administration, partly in trade), while Romanian and Hungarian are used side by side in everyday life.

We continued to treat the percentage of Romanian language as main indicator in further statistical investigations. The correlation matrix for the percentage change in

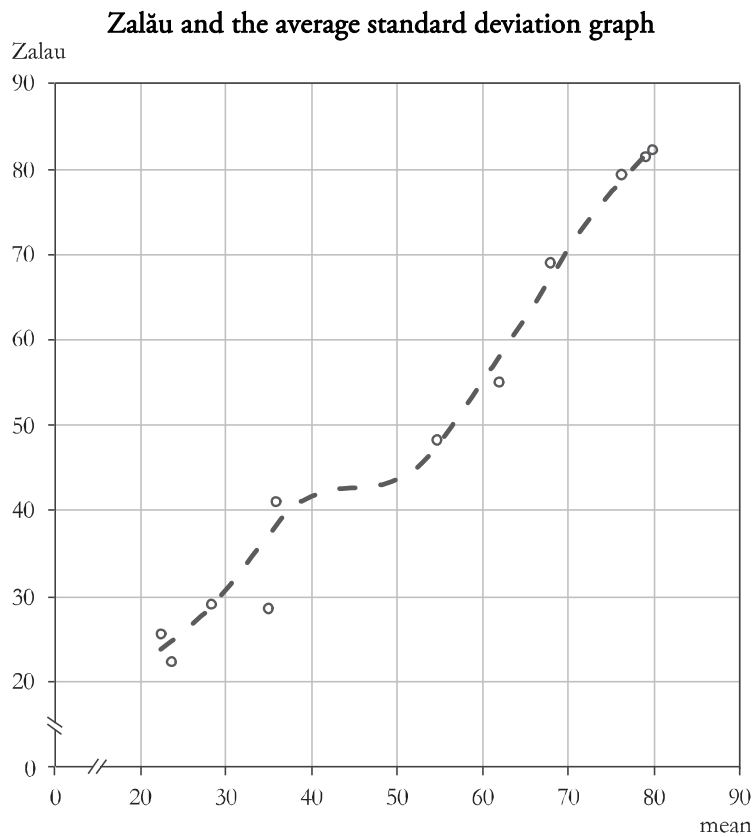
the towns under scrutiny¹² shows significant correlation for 29 towns (values between 0.55 and 0.99; an average of 0.92). The only exception is Odorheiu Secuiesc, which shows values between -0.1 and 0.33. This provides statistical proof that Odorheiu Secuiesc is an atypical case in the sense that there was no language shift in this period. However, in the majority of towns, changes in the ethnicity and language composition show remarkable similarities.

We also investigated the relationship between the duration of central function and the percentage increase of the Romanian language. The results indicate a moderate correlation ($cor=0.4172$; p -value 0.021). We find a stronger correlation if we compare the duration of the function to the absolute values of the Romanian-speaking population, instead of the percentage. In this case, the correlation coefficient is 0.6679 (p -value is insignificant). According to the regression analysis, the duration of the central function accounts for 44% ($R^2=0.44$) of the phenomenon, thus there is a significant statistical correlation between the administrative status, which is a conscious political decision, and the pace of increase.

In the course of our statistical analysis, we also tried to identify the most typical case of language shift, that is, the town that is the most representative case for the language shift of the population. To achieve this, we calculated the standard deviation of the Romanian language percentages for the 30 towns in our sample. As a reference, we used the standard deviation of the Romanian percentage of the total population size in the towns. Zalău (23.86) and Reșița (23.94) were the closest to the 23% proportion. The average standard deviation and the standard deviation graph (Figure 3) for Zalău show an almost linear relationship. As a result, we considered the seat of Sălaj county to be the most typical case of language development.

¹² Dataset for the percentage of Romanian mother tongue calculated for the censuses between 1900 and 2011.

Figure 3



Conclusions

20th-century Romania was characterised by urban revolution. Urban growth was more pronounced in the time of socialism, when today's network of regional poles and sub-regional centres was formed. Centrally located multifunctional towns are typically the most dynamically developing elements of the spatial structure. They serve as diffusion centres of social and economic changes. In East-Central Europe, where some historical regions are multi-ethnic and multilingual, these urban development poles served as diffusion centres for the transformation of the ethnic space.

During the 20th century, the linguistic composition of the towns with county seat function in Transylvania, Banat, and Partium underwent a drastic change. In 1900, there was a Romanian majority in 20% of the towns; today this rate is 86%. This shift is particularly true in regard to the Romanian language homogeneity. In 1900, there were no homogeneous Romanian towns, whereas in 2011 the percentage of

native Romanian speakers exceeded 90% in more than one third of the 30 towns and cities examined in our study. The scenario of changes is very similar in the case of each city and town. Zalău can be considered the most typical of these processes, its development almost coinciding with the mean value of the linguistic change in the towns and cities in question.

The spread of the Romanian language was the most intense between 1950 and 1990, during the decades of state socialism. As a result of the state-led and state-supervised, inter- and intra-regional migration linked to massive industrialisation, millions of predominantly Romanian youth were relocated, primarily into centres which had swelled to 2-300,000 and after 1968, to county seats, which had increased tenfold. Between 1948 and 1990, the urban population of Romania increased from 3.7 million to 12.6 million.

The events of 1989 marked a turning point in the economic and social life of the country, as well as in the demographic processes. State-controlled industrialisation and the related colonisation ceased. In the decades following 1990, the opening of borders, the economic crisis, and the social dissatisfaction resulted in the departure of four million Romanian citizens to other countries. Emigration and the increasing negative natural growth induced a strong population decline. Compared to the decades before 1990, internal migration significantly decreased; however, the attractiveness of large cities is still notable. The spread of the Romanian language continued after 1990, mainly in large and medium-sized cities with a Romanian majority population, although to a lesser extent. Between 2002 and 2011, the pace of the spread of the Romanian language continued to diminish in some of the towns and cities in question. In the medium-sized and small towns of the Hungarian ethnic block in Székely Land and in the northern part of the Partium region at the Hungarian-Romanian border area, the proportion of the Romanian and Hungarian language, as well as the ethnic structure are pointing in the direction of stabilisation (e.g. Sfântu Gheorghe – Sepsiszentgyörgy, Miercurea Ciuc – Csíkszereda, Odorheiu Secuiesc – Székelyudvarhely, Carei – Nagyvárad). This type of multi-ethnic stabilisation applies to ethnic proportions and a narrow range of cities. Although to varying degrees, the number of the population is declining in almost all language communities of all cities (Kulcsár–Brown 2017). Roma communities, which in some places, are underestimated in censuses, are exceptions to this trend. In the vast majority of the cities surveyed, a further decline in the proportion of the historical minorities is expected.

Annex

Figure A1

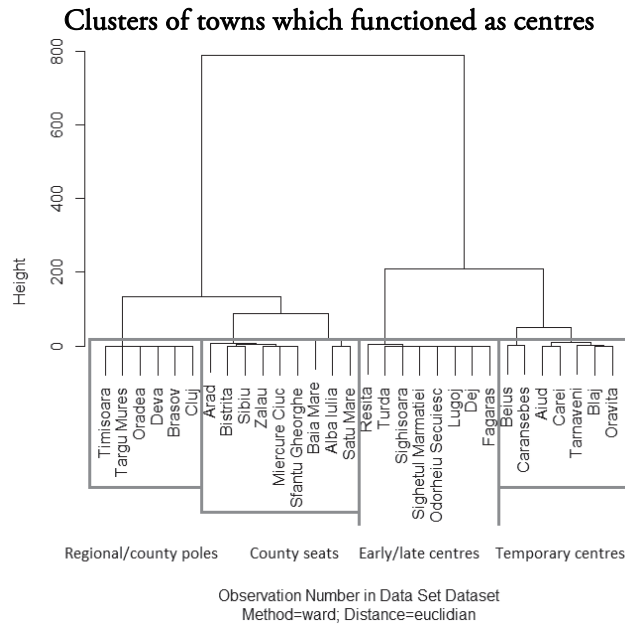


Figure A2

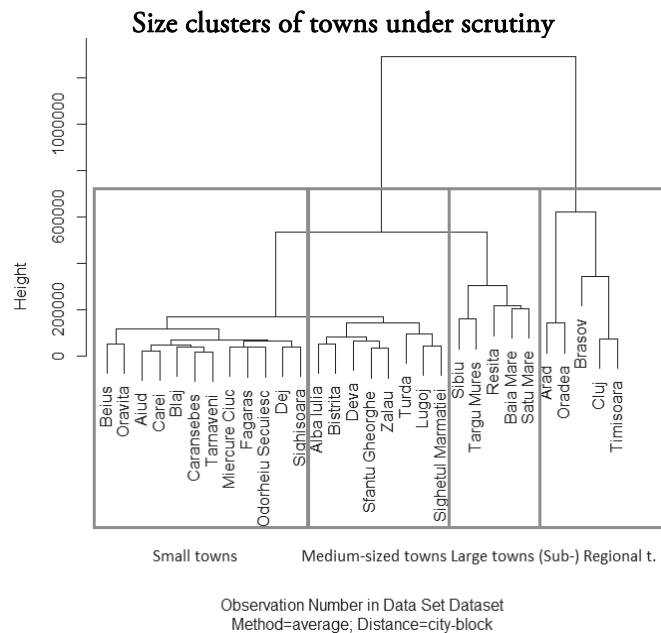


Figure A3

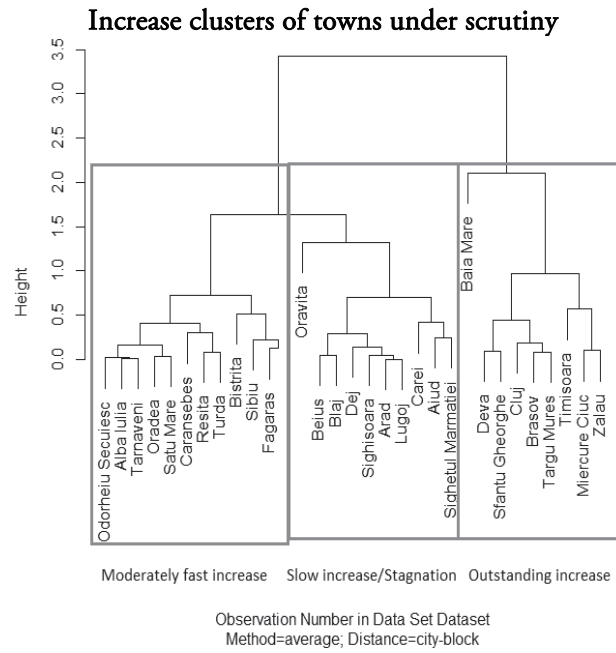
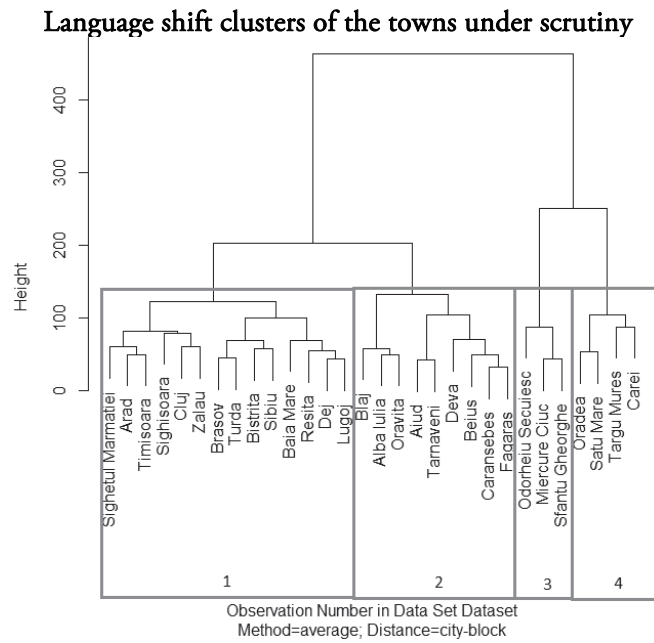


Figure A4



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