

## Geolinguistics: A Case of Balkan Immigrant Dialect Maps in Eskişehir

### Eskişehir İli Balkan Muhacir Ağızları Örneğinde Geolinguistik

**Prof. Dr. Semra Günay Aktaş - Prof. Dr. Erdoğan Boz - Songül İlbaş**

#### Abstract

Language is one of the cultural factors which help individuals from various societies to learn about different life styles. Geography is a discipline which includes human and naturel environment, studies and analyses their features as part of dispersion, connection, comparison and causation principles. Geolinguistics which has not yet entered into between the traditional topics of human geography studies on social use of language and change on its dispersion including dialect and idiolect. Geolinguistics is an interdisciplinary study dealing with combination of language changes and the maps which show language regions. The term geolinguistics is relatively new in traditional studies focussing language and geo relationship. It's not only related with maps but also culturel geography.

Spatial size is just coming up on social sciences in contrast to geography. Due to recent developments in both conceptualization and theorization in social sciences, notions such as place and space has been attracting more and more interest among social scientists. Many social scientists started to use GIS on their empirical studies.

This study on geolinguistic, is based on data collected between June and September 2013 from Eskişehir Linguistic Atlas Project funded by TUBITAK. In this study texts gathered from immigrant villages were analyzed based on various dialects (i.e: grammar, word, affix) and thematic maps were created by using MapInfo software.

**Keywords:** Geolinguistic, GIS, Dialect, İdiolect, Cultural Geography

#### Öz

Dil, farklı insan toplumlarının yaşam tarzlarını öğrenmelerinde kültürün temel bileşenlerinden bir tanesidir. Coğrafya insan ve doğal ortamı kapsayan, aynı zamanda bu veriler veya verilere bağlı özelliklerin hem kendi içlerinde hem de birbirileri ile olan ilişkilerini dağılışı, ilişki, karşılaştırma ve nedensellik prensipleri çerçevesinde araştıran, analiz eden bir bilim dalıdır. Henüz beşeri coğrafyanın geleneksel konuları arasına girememiş olan dil coğrafyasının çalışma konusu, diyalekt ve birey dili de dahil olmak üzere dilin sosyal kullanımı ve dağılımındaki değişimlerdir. Geolinguistik, dildeki değişimler ve dil bölgeleri ile ilgilenen disiplinler arası bir çalışmadır. Geolinguistik terimi, dil ve yer arasındaki ilişkiye odaklanan geleneksel çalışmalar içinde nispeten yenidir. Geolinguistik sadece haritalarla değil aynı zamanda kültürel coğrafya ile ilişkilidir.

Coğrafya biliminin tersine sosyal bilimlerde mekânsal boyut yeni yeni gündeme gelmektedir. Son yıllarda sosyal bilimlerdeki kavramsallaştırma ve kuramsallaştırmada yaşanan değişimlerle birlikte sosyal bilim araştırmalarında mekân ve yer analizi daha önemli bir bileşen haline gelmiştir. Çok sayıda sosyal bilimci ampirik araştırmalarında coğrafi bilgi sistemlerini kullanmaya başlamıştır.

Bu çalışmada kullanılan veriler Haziran-Eylül 2013 döneminde Eskişehir İli Dil Atlası adlı TÜBİTAK projesinde derlenmiştir. Muhacir köylerinden derlenen metinler diyalekt özellikleri açısından (ses, ek, gramer ve kelime) çalışılmıştır. Muhacir ağzına ilişkin diyalekt özellikleri MapInfo programında haritalanmıştır.

**Anahtar Kelimeler:** Geolinguistik, CBS, Diyalekt, Birey Dili, Kültür Coğrafyası

Prof. Dr. Semra Günay Aktaş, Anadolu University Faculty of Tourism, [semragunay@anadolu.edu.tr](mailto:semragunay@anadolu.edu.tr)

Prof. Dr. Erdoğan BOZ, Eskişehir Osmangazi University Faculty of Science and Letters, [dr.erdoganboz@gmail.com](mailto:dr.erdoganboz@gmail.com)

Songül İLBAŞ, Eskişehir Osmangazi Üniversitesi Faculty of Science and Letters, [songulilbas@gmail.com](mailto:songulilbas@gmail.com)

## Introduction

Language is one of the cultural factors which help individuals from various societies to learn about different life styles. Language is also instrumental in identifying smaller groups of people who share similar characteristics located in larger populations (Fellmann et al., 2000, p. 144). Linguistics works regional variations of dialectology and its subject matters are syntax, vocabulary, consonants, vowels, or tones. Dialectologists are interested in geographic distribution of dialects. Social and cultural influence can affect distribution of dialects and one dialect may spread into the area of a neighboring dialect (Teerrajanarat & Tingsabadh, 2011a, p. 362-363). Geography is a science that investigates and analysis to human and natural environment, and also their relationship with each other, with the principle of distribution, relationships, comparison, and causality. The subject of study of the geography of language that has not become one of the traditional topics of human geography yet is changes of the social use and distribution of the language.

Geolinguistics (linguistic or dialect geography) is an emerging field which is still not considered as part of mainstream human geography research. Its main research theme can be described as changes in the social use and the distribution of languages including dialects and idiolects with an emphasis on local variations stemming from political and cultural differences. (Gregory et al., 2009, p. 411-412). The term of geolinguistics is relatively new among the traditional studies which focuses on the relationship between language and location. Geolinguistics is associated with not only maps, but also is cultural geography.

Geolinguistics is an interdisciplinary subject arising from the combination of the process leading to the results of language change and the languages maps identifying the spatial pattern of language. (Hoch & Hayes, 2010, p. 23). In contrast to geography spatial dimension in the social sciences has recently become a current issue. In recent years, analysis of space and place in social science research has become increasingly more important components. Due to recent developments in both conceptualization and theorization in social sciences, notions such as place and space has been attracting more and more interest among social scientists. Spatial thinking has become the focus of the social sciences in the last century

because people and nations have intensively relocated and thus social, economic, political and cultural order has been deeply affected. (Goodchild, Insulin et al., 2000). Spatial thinking is the basic problem for all subjects consisting of the distribution in time and space. Most information that an unavoidable concerns spatial component is required to be processed spatially as measuring, mapping, analysis or display depending on the location on Earth. (Teerrajanarat & Tingsabadh, 2011a, p. 362-363). Development of GIS and spatial statistic models has major advantages for geographers. Validated empirical evidences that have been obtained by geography and linguistic experts work together have been useful to improve notions of dialects (Lee and Kretschmar, 1993, p. 541).

Traditional dialectology method is subjective because there are huge amount isogloss bundles for dozens of lexical variables (Grieve et al., 2011, p.1-2). Traditional border maps inaccurate, imprecise and possibly unreliable. Drawing dialect maps is also difficult with traditional way (Teerrajanarat & Tingsabadh, 2011, p.56-57).

Dialectometry provides a statistical approach to allow identify regional patterns objectively and replicable (Grieve et al., 2011, p. 3). There is not a standard model to measure whether a statistically significant the spatial pattern of a single linguistic variables. In modern dialectometry, regional patterns of single linguistic values are often ignored and attention is paid aggregated regional linguistic variations (Grieve, 2011).

Geographic information systems (GIS), has contributed to exceed the traditional limits of the social sciences and to develop a spatial oriented vision in social science research (Goodchild, Anselin et al., 2000). Numerous social scientists have begun to use GIS in their empirical research. Geolinguistics is an interdisciplinary field. Language maps are used for illustrate spatial patterns of language location on geolinguistics work. Spatial data analysis and cartographic methods have been played an important role in for assessment of linguistic data (Hoch & Hayes, 2010, p. 23-24). Also developments in the GIS technology contributed to this process by providing various empirical tools which help to visualize spatial perspective in social sciences through thematic map analysis. GIS used in the preparation of dialect map have facilitat-

ted understanding of factors such as social and cultural changes as well as understanding of the spatial patterns of dialect variation (Teerrajanarat & Tingsabdh, 2011, p. 362). In terms of mapping dialects, GIS not only helps us to understand the underlying spatial characteristics of dialects but also acts an instrument to portray the cultural and social dynamics associated with dialects. Spatial data manipulation, spatial data analysis, spatial statistical analysis, and spatial modeling can be easily done with geographic information analysis for geolinguistics research (translate from O'Sullivan and Unwin, 2003; Hoch & Hayes, 2010, p. 28). Geographical approach and GIS as a tool offer many possibilities to geolinguistics researchers for advancing and reexamining theory, hypotheses, and data visualization. And also geolinguistics researches can be made much faster and easier (Hoch & Hayes, 2010, p. 28).

Ethnic composition of the province Eskişehir is quite colorful by migrations of the Balkans and the Caucasus (Albanian, Bosnian, Abkhazians, Circassians, Tatars, Karachai, Nogai et al.). Further many regional and next to a lot of local dialects are spoken in the province Eskişehir because of internal migration. Because of these characteristics of this province, Eskişehir Language Atlas Project that funded by TUBITAK carried out in Eskişehir in Türkiye. The aim of this project is to identify the mother-languages spoken at the scale of the province Eskişehir, and also dialects & accents of Turkish Native Speakers and immigrants. In this project compilations were made belong to domestic dialects Manav, Yörük, Türkmen and belong

to Balkan immigrants' dialects. In addition an information was collected on Karachai, Crimean Tatars, Kazan Tatars and Nogai Tatars among Turkish dialects. The scope of this study is Balkan immigrants' dialects that phonological and morfological characteristics identified. The aim of this study is to exemplify dialect maps about Balkan immigrants' dialects.

## Method

The data used in this study is obtained from June to September 2013 period in the Province Eskişehir rural area. Compilations was studied aspect of dialectic. This study on geolinguistics, is based on data collected between June and September 2013 from Eskişehir Linguistic Atlas Project funded by TUBITAK. Language data collected by face to face interview. In this study texts gathered from Balkan immigrant villages were analyzed based on various dialects (i.e: grammar, vocabulary, suffix).

Dialectic characteristics of Balkan Immigrants were mapped in MapInfo program. Two different data were used in this study. Geographical databates comprises administrative boundary map and center of residential area. And the other side language data are linking between geographical data. Administrative data features are stored as polygons having the detail of village level. Center of country features stored as dot.

## Findings

### Subdialect Regions of Balkan Immigrant Dialects

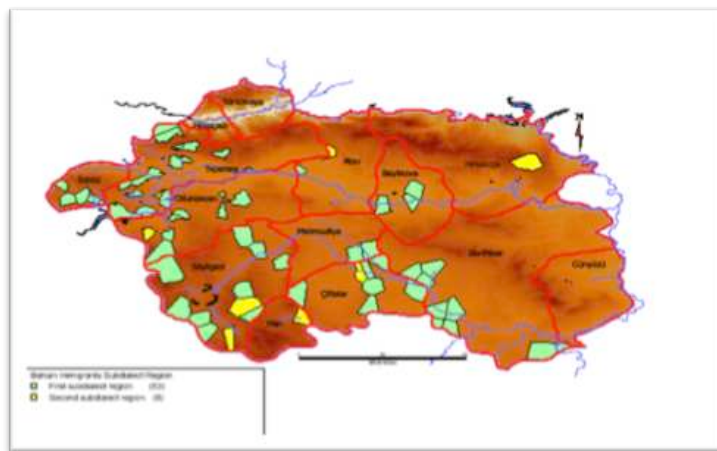
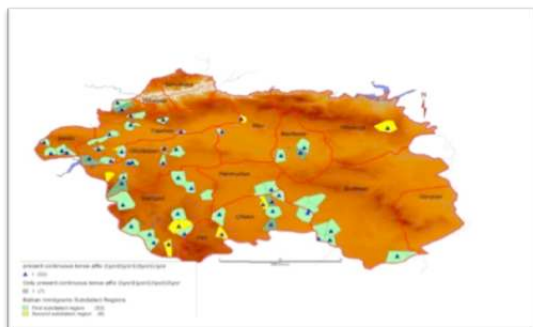


Figure 1. Distrubition of Subdialect Regions of Balkan Immigrant Dialects

Balkan immigrant dialects in Eskişehir separates into two subdialect regions depending on use of present continuous tense suffixes. On the first subdialect region;  $\{-\{Ay(I)\}-, -\{(I^4)y\}-, -\{(I^4)yA/(I^4)yI^4\}-, -\{(I^4)yo(r)\}-, -\{mAKtA\}-$  and  $\{-\{(i)or\}-$  are used and on the second one;  $\{-\{Ay(I)\}-, -\{(I^4)y\}-, -\{(I^4)yA/(I^4)yI^4\}-, -\{(I)yArI\}-, -\{(I^4)yo(r)\}-, -\{(i)or\}-$  and  $\{-\{(I^4)yoru\}-$  are used. The first subdialect region has fifty three villages and these condone has eight villages (see Figure 1).

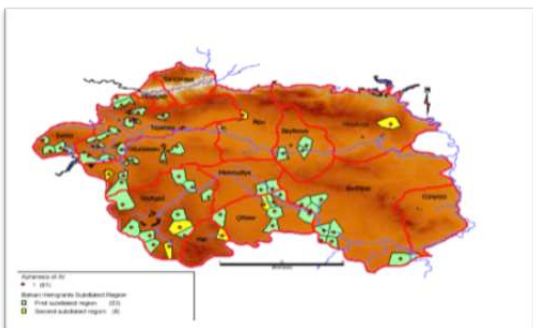
### Use of Present Continuous Tense Suffix For Standard Turkey Turkish in Balkan Immigrant Dialects



**Figure 2. Distribution of Present Continuous Tense Suffix For Standard Turkey Turkish in Balkan Immigrant Dialects**

In Balkan immigrant dialects of Eskişehir, in fifty two villages, present continuous tense suffix for standard Turkey Turkish  $\{-\{(I^4)yo(r)\}$  and the suffixes for Balkan immigrant dialects are used together. But in seven villages  $\{-\{(I^4)yo(r)\}$  is used only, however in only two villages present continuous tense suffixes for Balkan immigrant dialects are used alone. So Standard Turkey Turkish is dominant on use of present continuous tense suffixes in Balkan immigrant dialects in Eskişehir, especially in this seven villages (see Figure 2).

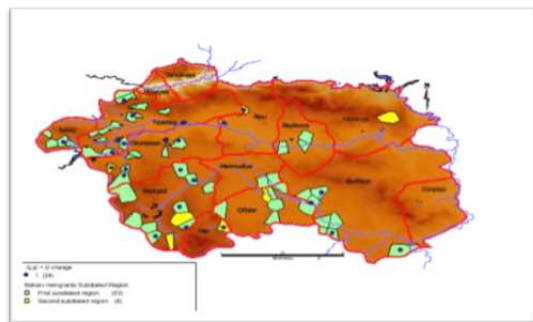
### Aprethesis of /h/ in Balkan immigrant dialects



**Figure 3. Distribution of Aprethesis of /h/ in Balkan Immigrant Dialects**

Aprethesis of /h/ is a typical feature for Balkan immigrant dialects of Eskişehir. Full of sixty one immigrant villages (61) have this feature (see Figure 3).

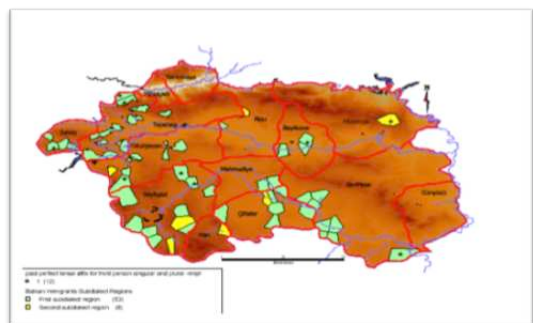
### /ç,ş/ > /j/ Change at Internal and Final Phoneme in Balkan Immigrant Dialects



**Figure 4. Distribution of /ç,ş/ > /j/ Change at Internal and Final Phoneme in Balkan Immigrant Dialects**

/ç,ş/ > /j/ change is a typical feature for Balkan immigrant dialects of Eskişehir. Twenty four villages have this feature in Balkan immigrant dialects of Eskişehir (see Figure 4).

### Use of Suffix $\{-\{mİştI\}$ in Balkan Immigrant Dialects

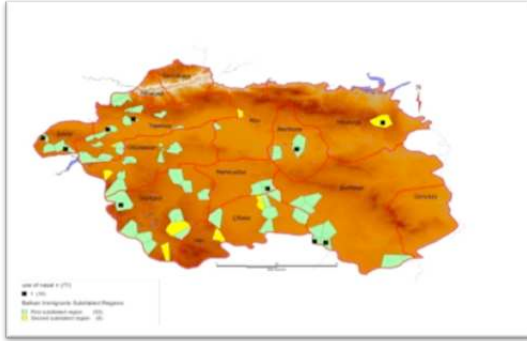


**Figure 5. Distribution of Use of Suffix  $\{-\{mİştI\}$  in Balkan Immigrant Dialects**

Past perfect tense suffix for third person singular and plural is  $\{-\{mİş\}$  in standard Turkey Turkish. As distinct from this suffix  $\{-\{mİştI\}$  is used in twelve villages in Balkan immigrant dialects of Eskişehir (see Figure 5).



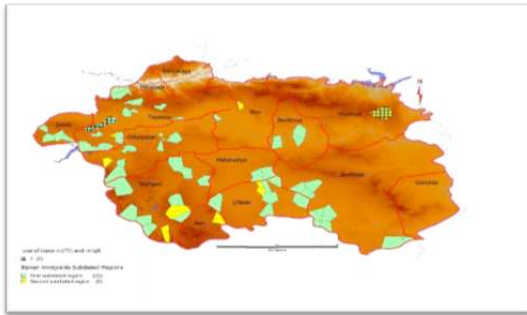
### Use of Palatal /n/ in Balkan Immigrant Dialects



**Figure 6. Distrubition of Use of Palatal /n/ in Balkan Immigrant Dialects**

Use of palatal /n/ isn't a typical feature for Balkan immigrant dialects of Eskişehir. However in ten villages within the scope of Balkan immigrant dialects of Eskişehir, palatal /n/ is used under the influence of neighboring dialects (see Figure 6).

### Use of Palatal /n/ and {-mİştI} in Balkan Immigrant Dialects



**Figure 7. Distrubition of Use of Palatal /n/ and {-mİştI} in Balkan Immigrant Dialects**

Use of palatal /n/ and {-mİştI} (past perfect tense suffix for third person singular and plural) aren't typical features for Balkan immigrant dialects of Eskişehir. However in two villages both palatal /n/ and {-mİştI} are used under the influence of neighboring dialects (see Figure 7).

### Conclusion

Balkan immigrants' dialects influenced by its location and affected by standard Turkey Turkish and the surrounding dialects. After phonological and morphological characteristics will be identified all dialects in Eskişehir, linguistics boundaries can be identified and interactions of dialects will be determined.

- Balkan immigrant dialects of Eskişehir separates into two subdialect regions depends on use of present continuous tense suffixes. The first region has fifty three villages and the second one has eight villages. Present continuous tense suffixes {-Ay(I)}-,
- -{(I<sup>4</sup>)y}-, -{(I<sup>4</sup>)yA/(I<sup>4</sup>)yI<sup>4</sup>}-, -{(I<sup>4</sup>)yo(r)}-, -{mAK-tA}-, -{(i)or}- are used at the first region and {-Ay(I)}-, -{(I<sup>4</sup>)y}-, -{(I<sup>4</sup>)yA/(I<sup>4</sup>)yI<sup>4</sup>}-,
- -{(I)yArI}-, -{(I<sup>4</sup>)yo(r)}-, -{(i)or}-, -{(I<sup>4</sup>)yoru}- are used at the second region. In fifty two villages both present continuous tense suffixes for standard Turkey Turkish and Balkan immigrant dialects are used together. So standard Turkey Turkish is dominant about use of present continuous tense suffixes in Balkan immigrant dialects of Eskişehir.
- Aprethesis of /h/ is a typical feature for Balkan immigrant dialects of Eskişehir. It is seem at full of sixty one Balkan immigrant villages in Eskişehir.
- /ç,ş/ > /j/ change at internal and final phoneme is a typical feature for Balkan immigrant dialects of Eskişehir. It is seem at twenty four Balkan immigrant villages in Eskişehir.
- Palatal /n/ and past perfect tense suffix for third person singular and plural {-mİştI} are used within the scope of Balkan immigrant dialects of Eskişehir under the influence of neighboring dialects.

Geolinguistics studies are very important to create The Dialect Atlas of Türkiye. Thus the importance geolinguistics methods will reveal in dialect researches. In addition, this methodology will be guiding for the dialect atlas of Türkiye.

## References

- Goodchild, M. F., Anselin, L., Appelbaum, R. P. & Harthorn, B. H. (2000). Toward spatially integrated social science. *International Regional Science Review*, 23 (2), 139-159.
- Gregory, D., Haggett, P., Smith, D. M. & Stoddart, D. R. (2009). *The dictionary of human geography*. 5th Edition, Singapore: Willey-Bleckwell.
- Grieve, J. (2011). The use of spatial outocorrelation statistics for the analysis of regional linguistic variation. <http://edoc.hu-berlin.de/conferences/qitl-4/grieve-jack-34/PDF/grieve.pdf>
- Grieve, J., Speelman, D. & Geeraerts, D. (2011). A statistical method for the identification and aggregation of regional linguistic variation. *Language Variation and Change*, 23, 1-29.
- Hoch, S. & Hayes, J. J. (2010). Geolinguistics: The incorporation of geographic information systems and science. *The Geographical Bulletin*, 51, 23-36.
- Lee, J. & Kretschmar, W.A. (1993). Spatial analysis of linguistic data with GIS functions. *International Journal Geographical Information Systems*, 7 (6), 541-560.
- Teerrajanarat, S. & Tingsabadh, K. (2011). A gis-based approach for dialect boundary studies. *Dialectologia*, 6, 55-75.
- Teerrajanarat, S. & Tingsabadh, K. (2011a). Using GIS for linguistic study: A case of dialect change in the Northeastern Region of Thailand. *Procedia Social and Behavioral Sciences*, 21, 362-371.