"www.regionalsprache.de (REDE)" – a dialectological GIS for linguists and forensic phoneticians

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GIS, also known as geographical information systems, are computer systems that enable users to capture, store, analyse or query geographically referenced data. In this paper, a GIS tool is introduced that offers a range of services useful for the dialectological analysis of sound recordings involving German speakers. A demonstration is given of analysis tools that are useful for linguistic research in general and specific features that could particularly assist the forensic phonetician.

Background

The dialectological GIS tool discussed here was created as part of the regionalsprache.de project, also called the REDE-project. The goal of the "regionalsprache.de (REDE)" project in Marburg is to capture the entire variative spectrum of male speakers of different ages and social backgrounds from 150 locations across the German Federal Republic. The reason for this project was the fact that whereas the development of the different dialect varieties in German had been studied in great detail, an overview of the regiolect variety (or the regional High-German variety) or the modern regional languages as a whole, does not exist (cf. Kehrein 2006); for large parts of the Upper and West Middle German regions, developments in the dialects can be followed in precise detail over more than a century thanks to Georg Wenker. Around 1880 he conducted an extensive survey, investigating a range of aspects concerning dialectal phonology and morphology. As informants he used elementary school teachers from around 44,000 school locations from across the German Empire of the time and established the famous linguistic database that is now known as "Sprachatlas des Deutschen Reichs".

At the time, 140 years ago, dialects dominated everyday communication in most regions of Germany. Nowadays, however, it is for a majority of speakers more common to speak a regiolect variety instead of a local dialect. Using partially the same speech materials as Wenker used at the time, the REDE study provides an overview of the current language situation in Germany concentrating in particular on inter-regional and intra-regional differences.

The speakers

At each location, three groups of speakers are examined in REDE: 1) a representative of the older generation (a so-called "NORM"), 2) two police officers as representatives of the average speaker of the modern regional language (middle generation, middle level of education and social status, communicative occupation), and 3) a representative of the potentially progressive type of speaker (17-22 years old, higher secondary education).

The speech materials

The speaking conditions recorded include read (the Northwind and the Sun) and spontaneous speech (interview/ conversation with a friend/telephone call). In addition, each speaker was asked to provide a dialect-version and their best High-German version (also referred to as

their regiolect version) of the 40 sentences used in the Wenker survey.

How can the REDE database be used for forensic analysis?

Just a few examples are mentioned here:

- 1. All materials, that means all recordings and all the associated dialect maps, can be consulted for free. For scientific purposes materials can also be received in high quality.
- 2. Orthographic transcriptions exist for all recordings and phonetic transcriptions for part of the REDE data.
- 3. The transcripts above can be searched for words, sounds and sound combinations.
- 4. Geographic maps can be created online and downloaded showing the different pronunciations of particular words by region/city.

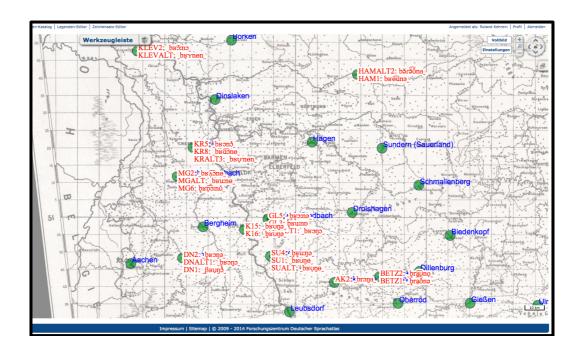


Figure 1 Example of a REDE map showing the different pronunciations of the German word 'braune' (= brown). Each speaker is assigned with a code (shown in red), consisting of the abbreviation indicating the place of birth of the speaker (K=Koeln, KR=Krefeld, etc) and the generationmarker (ALT=old, JUNG=young, no marker=middle-aged)

References

Kehrein, R. (2006). Regional accent in the German language area. How dialectally do German police answer emergency calls? In: F. Hinskens (ed.). *Language Variation – European Perspectives*, 83-96. Amsterdam/Philadelphia: Benjamins.