

Documenting Diaspora Experiences: The Texas German Dialect Archive

This paper presents the Texas German Dialect Archive (TGDA), an on-line multimedia archive that contains recordings of interviews (including transcriptions and translations) with more than 190 speakers of present-day Texas German. We first give a brief historical overview of the development of the Texas German community, starting with the settlement of the first German immigrants in Texas in the 1830s up to the beginning of the 21st century. Next, we describe the workflow of the Texas German Dialect Project (TGDP), which aims to record, document, and archive the remnants of the rapidly eroding Texas German dialect. In this context, we discuss how the Texas German Dialect Archive is currently used for linguistic research on new-dialect formation, language contact, and language death. Since the open-ended sociolinguistic interviews contain a wealth of information on the history and cultural practices of the Texas German community, the archive is also of interest to historians and anthropologists. Finally, we show how the archive has been used for community outreach programs throughout central Texas.¹

1. The socio-historical context

Texas Germans live primarily in a thirty-one county area of west-central Texas and are descendants of settlers who emigrated mainly from middle and northern Germany, starting with the first large wave arriving between 1844 and 1848 (Biesele (1928)). Before World War I, Texas German language communities were able to maintain their language through German-speaking schools, churches, newspapers, and social organizations. Partly due to the English-only laws passed during World War I, German became stigmatized and was not taught in schools anymore. Two world wars and gradual assimilation led to the loss of public institutional support for the widespread maintenance and use of German in such previously flourishing venues as German-language newspapers, schools, and churches (see Moore (1980), Salmons (1983), Boas (2005a), Nicolini (2004), and Salmons and Lucht (2006) for an overview).

Following World War II, there was an increased migration of non-German speakers to the traditional German enclaves, which resulted in most public transactions taking place in English. The predominant use of English in the public domain pushed the use of German even further into the private domain. At the same time, young Texas Germans left the traditional German-speaking areas for employment in larger cities such as Austin, San Antonio, and Houston, or to enroll in college or enlist in the military (see Jordan (1977) and Wilson (1977)). For this group, speaking primarily English had a number of practical and economical advantages, eventually leading to a linguistic decline in their command of Texas German. Another factor contributing to the shrinking number of German speakers in the post-World War II years was the increase in marriages between German and non-German speakers. In these cases, English typically became the lan-

¹ The TGDP gratefully acknowledges the financial support of the University of Texas at Austin and Humanities Texas (formerly Texas Council for the Humanities). Parts of this paper are based on Boas (2005b) and Boas (to appear).

guage of the household, which led to children being raised exclusively in English (see Nicolini (2004) and Boas (2005b)).

In the 1960s, about 70,000 speakers of Texas German remained in the German-belt, which encompasses the area between Gillespie and Medina Counties in the west, Bell and Williamson Counties in the north, Burleson, Washington, Austin, and Fort Bend Counties in the east, and DeWitt, Karnes, and Wilson Counties in the south. Today only an estimated 8-10,000 Texas Germans, primarily in their sixties or older, still speak the language of their forbearers fluently (see Boas (2003, 2005b)). Consequently, English has become the primary language for most Texas Germans in both private and public domains, whereas the reverse would still have been true as late as the 1940s. With no sign of language shift being halted or reversed and fluent speakers almost exclusively in their 60s and older, Texas German is now critically endangered according to McConvell's (2002) levels of endangerment. As such, it is expected to become extinct within the next 30 years. This sharp decrease in speakers puts Texas German on the list of about 3000 languages and dialects world-wide that are expected to go extinct by the end of the 21st century (see Crystal (2000) and Nettle and Romaine (2000)).

Since the last in-depth recordings of Texas German were conducted in the 1940s and 1960s (see Eikel (1954) and Gilbert (1972)), no detailed studies have systematically traced more current developments of this German dialect. At the moment, there is no data on the current state of Texas German available for linguistic, historical, and anthropological research or for heritage preservation efforts by the Texas German community. In response to this situation, Hans C. Boas founded the Texas German Dialect Project (TGDP) in the Department of Germanic Studies at the University of Texas at Austin in 2001. The main goal of the TGDP is to record, document, and analyze the remnants of the rapidly eroding Texas German dialect. In order to achieve this goal, a number of procedures were set up that govern the workflow of the project. After collecting and reviewing the publicly available previous work on Texas German (e.g., Eikel (1949, 1966, 1967), Gilbert (1963, 1965, 1972), Salmons (1983), Guion (1996), among others), a strategy was developed that would allow for a broad-scale collection of data representing the largest possible number of linguistic features of current-day Texas German. The following section describes the workflow of the TGDP; then we address the architecture of the web-based Texas German Dialect Archive (TGDA).

2. The Texas German Dialect Project

Over the past five years, members of the Texas German Dialect Project (TGDP) have recorded three different types of data. The first type of data consists of English word lists and sentences taken from the Linguistic Atlas of Texas German (Gilbert (1972)) and from Eikel (1954). Before interviews begin, informants sign a consent form giving permission to use the recordings for educational purposes as well as heritage documentation efforts including digitization and delivery over the web. An interview begins by eliciting personal information (data and place of birth, level of education, language spoken at home when growing up, etc.). Subsequently, interviewers read the English words and sentences to the informants who are then asked to translate them from English into Texas German. The interviews are recorded on MiniDisc and take place at the informants' homes, at nursing homes, museums, or at local churches. Each interview lasts about 20-30 minutes. The advantage of using word lists and sentences lies in the fact that the current

recordings can be compared with data recorded over four decades ago. Furthermore, it allows us to have well-focused and well-controlled data sets informing us of the distribution of specific phonological, morphological, and syntactic features of present-day Texas German.

The second type of data seeks to capture the informants' daily use of Texas German. An eight page long questionnaire was drafted to serve as a basis for sociolinguistic interviews to be conducted in German. The first section of the questionnaire contains questions about informants' personal history (date and place of birth, place of origin of informants' ancestors, etc.). The second section of the questionnaire consists of about 140 questions in German about topics including childhood activities, the community, religion, education, living conditions, tourism, government, language, and current activities. The goal of these questions is to produce casual, relaxed conversation in which informants are given the chance to respond freely in Texas German without being asked to produce specific linguistic structures as with the word and sentence list translation task (see Boas (2002), (2003), (in press)). By allowing informants to speak freely it becomes possible to discover new linguistic features of Texas German that have previously gone unnoticed because elicitation methods for them were not included in the research methodology of previous studies. At the beginning of an interview, interviewers speak German to start eliciting personal information about the informants in Texas German (information on place and date of birth, languages spoken with the parents at home, etc). During this first phase of the interview, informants are typically aware of the recording device and pay attention to their speech. However, after the first two to three minutes, informants typically feel more relaxed, forget about the MiniDisc recorder, and begin to respond to questions in a relaxed way by speaking Texas German. Each interview lasts between 40-60 minutes.

The third type of data seeks to capture the informants' use of Texas German when they are engaged in activities with other native Texas Germans. In order to record this type of data, we chose card-playing activities, dinner preparation, and farm chores. After filling out the consent forms, informants receive wireless microphones which are linked to a MiniDisc player. Interviewers leave the area and do not get involved in the 60-100 minute long recording activities. The three scenarios enable the collection of data in a variety of environments that involve different usages of Texas German.

The three types of spoken data are augmented by a written biographical questionnaire. This questionnaire elicits information about age, date of birth, level of education, domains of language use (Texas German and English), and language attitudes, among others. The biographical data are used to create the metadata records for each informant and each interview to be included in the digital on-line archive. Over the past five years, members of the TGDP interviewed more than 190 speakers, totaling more than 350 hours of data. The recordings are stored on MiniDiscs, whose average lifespan are estimated to be around ten years. In order to preserve the recordings for perpetuity and to make them available to as wide an audience as possible, they are stored in a digital archive. The following section discusses the various processing steps that the recordings undergo before they are deposited in the on-line Texas German Dialect Archive (TGDA).

3. Processing of recordings

The recordings are transferred from MiniDisc to our main workstation and saved in WAV format (48,000 Hz, 16-bit Stereo). As protecting the anonymity of informants is important, no recordings accessible to the public contain any personal identifying information. To achieve this goal, we cut out the names of informants and edit out sections of interviews in which informants refer to specific titles and names of places or events that could be used to identify them. In addition, each audio master file is assigned a unique combination of numbers referring to the interviewer, the informant, and the number of the interview conducted with that informant. Further information includes a number identifying the file as a master file and a letter showing whether the file is audio or combined audio/video. For example, the file name 8-154-3-0-a.wav indicates that interviewer No. 8 conducted this interview with informant No. 154, and that this is the third interview with that informant. The '0' indicates that this file is a master file. When a copy of the master file is edited for transcription and translation at later stages of our workflow, each subsection is identified by a series of consecutive numbers replacing the '0'. Finally, the 'a' in the file name stands for 'audio' indicating that this is an audio master file. Subsequently, a copy of each master file is uploaded to the project's Linux-based file server.

After making the recording anonymous, they are segmented into smaller sections, or 'media sessions' that vary in length between about thirty seconds and six minutes. Providing smaller sections of interviews allows users with low bandwidth to access the recordings more easily than if they had to download an entire interview of 40-60 minutes. Each media session is a segment of an interview that deals with a specific topic such as the founding of Fredericksburg or how to make sausage. A media session may consist of a monologue, a dialogue, a song, or a poem, for example. Each media session is assigned a unique file name that identifies it as belonging to a specific master file and numbered consecutively. The edited media sessions are subsequently labeled with a descriptive name identifying their contents (e.g., "Shooting deer", or "Brewing beer during prohibition") and then saved in a separate folder on the file server. In addition, field notes are included with each interview to provide supplemental information about special circumstances surrounding the recording of the interview (number of speakers involved, location, etc.).

Once the recordings are segmented, they are transcribed and translated with ELAN (EUDICO Linguistic Annotator), which allows for the definition of a multitude of so-called parent tiers (for each speaker in an interview) with associated sub-tiers in combination with synchronized playing of video and audio data (both for annotation and for subsequent re-playing) (see Figure 1). ELAN has a number of advantages: (1) it is free, (2) it supports open formats such as XML, WAV, MPEG1/2, and UNICODE, and (3) it produces time-aligned transcriptions which facilitate verification in combination with the recording. Using a specific web-interface designed for the TGDP (see Figure 2), annotators check out the media sessions in WAV format from the file server, open them, and transcribe and translate them with ELAN. Once this step is completed, annotators load up the XML-compatible EAF transcription file produced by ELAN to the file server. Next, the files are checked for consistency. A reviewer checks out a media session's WAV and EAF files and conducts quality control. Finally, the EAF transcription file is returned to the file server.

Figure 1: ELAN (EUDICO Linguistic Annotator)



Figure 2: Web-based interface supporting the workflow of the TGDP



To publish a media session, a project member with manager privileges uses the internal staff web pages to access the MySQL database in order to check on the status of a media session. The files which have undergone both annotation and quality control are marked with a special icon that signals their status as “ready to be published.” A click on the file link automatically converts a media session’s WAV and EAF files into MP3 and HTML files, respectively, which are then

stored on the file server. Producing such MP3 and HTML files is important to allow users of the archive with low bandwidth easy access to the archive's holdings. This step is guided by Bird & Simons' (2003: 576) recommendation to "provide low-bandwidth surrogates for multimedia resources, e.g. publish MP3 files corresponding to large, uncompressed audio data" (see Boas (to appear)).

The final step before publishing a media session involves the inclusion of metadata. Based on the informants' biographical questionnaires, the MySQL database includes a separate database table for metadata information. Each media session is thus associated with a specific set of metadata information values: the place and date of the recording, the place and date of the informant's birth, the gender, the childhood residence, the current residence, the level of education, the language(s) spoken in the parents' home before elementary school, and the language(s) of instruction in elementary school. Moreover, each file is associated with an additional 38 metadata values based on the IMDI metadata schema for endangered languages (see Johnson & Dwyer (2002) and Boas (to appear)).

Once the metadata and the different file formats of a media session are in place, a project member with manager privileges accesses the web-based interface to publish the media session. The only step necessary for publication is to check the box "publish media session" in a web form, and to hit return. With this step the "publication" value of that media session is marked as positive in the MySQL database and a public-facing web site can access the audio and transcription files on the file server in combination with the metadata in the database. The following section describes how the public web pages of the Texas German Dialect Project can be used to access the media sessions.

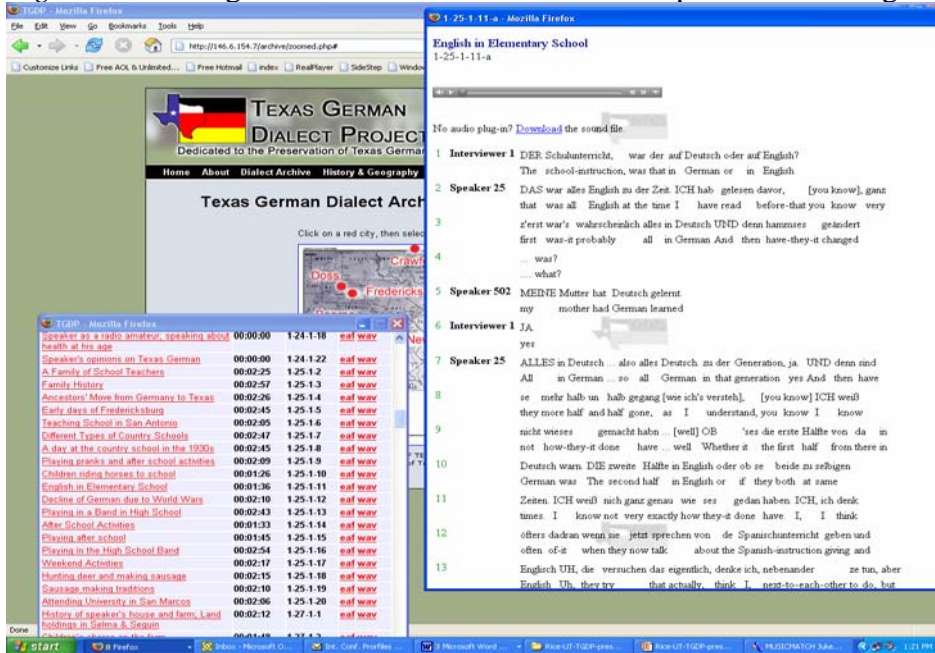
4. The Texas German Dialect Archive (TGDA)

From the home page of the TGDP (<http://www.tgdp.org>), which includes a wealth of information on Texas German history, geography, and culture users can access the Texas German Dialect Archive (TGDA) by clicking on "Dialect Archive." With a username and a password, users then log on to the archive pages by agreeing to the terms and conditions of the archive. The log-in protocol fulfills four purposes for the dialect archive and the data contained therein: (1) to make users agree to the terms and conditions of use of the archive before they access any data (e.g., citing archival materials appropriately, not using the data for commercial purposes, etc.); (2) to exclude a user's access to the archive if the archive's conditions of use are not followed; (3) to have an inventory of users accessing the archive; and (4) to ascertain what types of data are accessed by individual users. After acknowledging the terms and conditions of use, users may choose between three different graphical user interfaces to access recordings and their accompanying transcriptions contained in the database.

To access the archived data as easily as possible, users can choose between two options. The first option for accessing files in the TGDA is via a number of digitized maps from the Linguistic Atlas of Texas German (Gilbert (1972)). Users start by viewing a general map of Texas outlining the areas in which Texas German is spoken. By clicking on this area of central Texas, users are presented with a new window detailing the counties with individual locations for which Texas German recordings are available. Clicking on a specific location, e.g., Fredericksburg displays a

pop-up window containing a list of media session names with their length and formats in combination with their unique ID numbers. The media sessions, which are available for download in different formats, are labeled with short titles summarizing their content (e.g., “Growing up on a farm”, or “Walking to church in the winter”). Linguists interested in time-aligned transcriptions and audio files with low compression rates may download WAV formats in combination with their EAF annotation files. To view and listen to these files, users need to employ ELAN. While this option for downloading allows for viewing time-aligned transcriptions in combination with uncompressed sound files, the size of WAV files may be 10 MB and more. The TGDA also offers versions of media sessions in MP3 and HTML formats. With this option, users may click on a file name, which opens a new window with an MP3 player and plays the audio portion of the media session. The same window contains a transcription and translation of the media session in HTML (see Figure 3). Users can read the transcript and its corresponding translation while the audio file is playing to better understand the contents of the recording (see Boas (to appear)).

Figure 3: Reading a media session’s HTML transcript while listening to its MP3 sound file



Media sessions of the translation tasks (“Gilbert” and “Eikel” data) can also be accessed through the public archive web pages. By clicking on a specific location for which the archive contains recordings, users may choose among the 148 words, phrases, and sentences from Gilbert (1972), or the 191 sentences from Eikel (1954), whose re-recorded versions are also stored in the archive. A new window lists the full set of TGDP informants who have provided a translation of a particular word, phrase, or sentence. Clicking on that word, phrase, or sentence downloads the audio file of the Texas German translation. This access option allows users to compare a controlled data set in order to figure out how different informants perform the same translation task. This remainder of this section (based on Boas (to appear)) gives a brief overview of how the resources contained in the Texas German Dialect Archive have been used over the past five years.

We begin with the usefulness of the archive for research purposes. During the last 30 years, there have been no systematic efforts to gather larger amounts of Texas German data leading to de-

tailed studies tracing the development of this German dialect. The various types of data contained in the archive will support linguistic research in a variety of ways. In particular, the archive offers the following types of data important for cross-linguistic research on language contact, language change, and language death:

- (1) Apparent time data (see Haas (1999), Wagener (2002)). Current research on language change in progress (Bailey (1997, 2002), Bailey et al. (1991)) builds on the success of Labov's (1963, 1966) application of apparent time data to explore the mechanisms of language change. The apparent time data contained in the TGDA consists of recordings with members from two different generations and will provide material that will further our understanding of language change.
- (2) Real time data (see Bailey (2002), Labov (1994)). Re-recording Eikel's (1954) and Gilbert's (1972) word and sentence lists has resulted in a rich pool of data that serves as real-time evidence for language change when compared with Eikel's and Gilbert's original data. As such, a comparison of the Texas German data with data from other languages will help to shed light on the mechanisms underlying language change and are useful for linguists interested in phonological, morphological, syntactic, and lexical changes.
- (3) Different levels of spontaneity. Offering for each informant data that varies according to Himmelmann's (1998) spontaneity hierarchy (translation data, open-ended sociolinguistic interviews, and conversations among informants) in combination with biographical data allows linguists to examine a wide range of linguistic performances.

So far, the TGDA has been used for research on Texas German as well as other rapidly eroding dialects (see Boas (2002, 2003, in press, to appear), Moran (2004), Nicolini (2004)). However, the data provided by the TGDA are not only of interest to Germanic Linguistics. Because of their scope and format (on-line delivery of transcriptions and translations), they also allow researchers working on other languages to access the Texas German data to help further the understanding of a range of phenomena from a cross-linguistic perspective.

The dialect archive has also been integral in developing and teaching linguistics courses. One of the main problems typically encountered by instructors when teaching linguistics classes is that students are asked to apply their knowledge of theoretical concepts by solving printed exercises in textbooks or provided by the instructor. Whereas these traditional exercises enable students to practice solving linguistic problems, their lack of relevancy and immediacy generally results in pedagogic problems on two levels. First, traditional exercises fail to demonstrate the pervasiveness of linguistic problems in speech communities students are exposed to in their daily lives and create the false picture of linguistics as the study of exotic and remote languages. Second, traditional exercises fail to excite and motivate students to conduct further research and learning on their own. Even when readings, class lectures, and exercises are augmented by recordings of interviews in class, students are usually left with no chance of using these recordings by themselves outside of class to work on homework assignments or conduct research of their own.

The web-based multimedia archive of Texas German seeks to overcome these problems by giving students the opportunity to gain access to interview data to conduct independent research on Texas German both in and outside the classroom. The TGDA's combination of audio clips with transcribed and translated textual data enables students to approximate sitting directly across

from the Texas German informants as they talk. This high level of engagement has resulted in an array of original student research projects on Texas German language, history, and culture.

Finally, the TGDA has played an essential role in community outreach and heritage preservation efforts. The staff of the Texas German Dialect Project is regularly invited to give guest lectures to local genealogical societies on the status of Texas German. These lectures raise awareness in the community about the current status of Texas German and enable the TGDP to connect with local schools and preservation societies eager to use TGDA materials for educational programs about Texas language, history, and culture. One of the ways in which the dialect archive will be used in the future is by setting up computer terminals in local museums to enable access to the archive. Museum visitors will then have immediate access to the archive and can listen to the stories and learn more about the history, culture, and language of the Texas German community. Although the Texas German Dialect Project is in the process of documenting Texas German, there does not appear to be much interest in the community to maintain the dialect. As one informant put it: “We know Texas German is dying out, but that’s the way it is. We don’t need the language any more as English is more useful.” Despite these views towards language maintenance, feedback has been consistently positive regarding our outreach activities to genealogical and preservation societies, schools, and museums.

5. Conclusions

This paper presented the organization of the Texas German Dialect Project, which is in the process of documenting and archiving the remnants of the rapidly eroding dialect of Texas German. First, we gave an overview of the socio-historical background of the Texas German community from its founding in the early 1830s until the beginning of the 21st century. At present, there are fewer than 10,000 fluent speakers of Texas German, most of whom are over 60 years of age. Because the dialect is not passed on to younger generations it will most likely be extinct by the middle of the 21st century. The mission of the Texas German Dialect Project is, as stated, (1) to document Texas German as it reflects the rich cultural and linguistic traditions of its residents; (2) to gather basic research information about linguistic diversity in order to understand the nature of language variation, contact, and change; (3) to provide information about language differences and language change for public and educational interests, and (4) to use the collected materials for the improvement of educational programs about language and culture. The project’s workflow consists of the following steps: recording interviews, editing the recordings, transcribing and translating the recordings, and finally storing the recordings together with their transcriptions and translations in the on-line multimedia Texas German Dialect Archive. Finally, we showed how the archived materials can be used for research, teaching, and community outreach. We hope that these applications of the Texas German Dialect Archive will prove to be the most useful and rewarding aspects of the Project as a whole, and will contribute to continued understanding and sharing of ideas and information about this community and their language in accordance with the principal missions of the TGDP.

6. References

Bailey, G. (1997): “When did Southern American English begin?” in: Schneider, E. (ed.), *Englishes Around the World 1: Studies in Honor of Manfred Görlach*. Amsterdam: Benjamins. pp. 255-275.

- Bailey, G. (2002): "Real and Apparent Time," in: Chambers, J.K., P. Trudgill, and N. Schilling-Estes (eds.), *The Handbook of Language Variation and Change*. Oxford: Blackwell. pp. 312-323.
- Bailey, G., T. Wikle, J. Tillery, and L. Sand (1991): "The apparent time construct," in: *Language Variation and Language Change* 3, 241-264.
- Biesele, R.L. (1928): A History of the German Settlements in Texas. Ph.D. dissertation, UT Austin.
- Bird, S., and G. Simons (2003): "Seven Dimensions of Portability for Language Documentation and Description," in: *Language*, 79(4), pp. 557-582.
- Boas, H.C. (2002): "The Texas German Dialect Archive as a Tool for Analyzing Sound Change," in: Austin, P., H. A. Dry, and P. Wittenburg (eds.)(2002), *Proceedings of the International Workshop on Resources and Tools in Field Linguistics held in conjunction with the Third International Conference on Language Resources and Evaluation*. Las Palmas, Spain. pp. 28.1-28.4.
- Boas, H.C. (2003): "Tracing Dialect Death: The Texas German Dialect Project," in: Larson, J., and M. Paster (eds.) (2003), *Proceedings of the 28th Annual Meeting of the Berkeley Linguistics Society*. pp. 387-398.
- Boas, H.C. (2005a): "A Dialect in Search of its Place: The Use of Texas German in the Public Domain," in: Cravens, C., and D. Zersen (eds.), *Transcontinental Encounters: Central Europe Meets the American Heartland*. Austin: Concordia University Press. pp. 78-102.
- Boas, H.C. (2005b): "Texas German Dialect." In: T. Adam (ed.), *Germany and the Americas: Culture, Politics, and History*, Vol. 3. Santa Barbara : ABC-CLIO. pp. 1029-1035.
- Boas, H.C. (in press): "Some Consequences of Case Loss in Texas German," in: *Proceedings of the 29th Annual Meeting of the Berkeley Linguistics Society*.
- Boas, H.C. (to appear): "From the Field to the Web: Implementing Best-practice Recommendations in Documentary Linguistics." *Language Resources and Evaluation*.
- Crystal, D. (2000): *Language Death*. Cambridge: CUP.
- Eikel, F. (1949): "The Use of Cases in New Braunfels German," in: *American Speech*, 24, pp. 278-281.
- Eikel, F. (1954): *The New Braunfels German Dialect*. Ph.D. dissertation. Baltimore: Johns Hopkins.
- Eikel, F. (1966): "New Braunfels German: Part II," in: *American Speech*, 31, pp. 254-260.
- Eikel, F. (1967): "New Braunfels German: Part III," in: *American Speech* 32, pp. 83-104.
- Fuller, J., and G. Gilbert (2003): "The Linguistic Atlas of Texas German Revisited," in: Keel, W., and K. Matheier (eds.), *Deutsche Sprachinseln Weltweit*. Frankfurt/New York: Peter Lang. pp. 165-176.
- Gilbert, G. (1963): *The German Dialect spoken in Kendall and Gillespie Counties, Texas*. Ph.D. dissertation. Harvard University.
- Gilbert, G. (1965): "Dative vs. accusative in the German dialects of central Texas," in: *Zeitschrift für Mundartenforschung* 32, pp. 288-296.
- Gilbert, G. (1972): *Linguistic Atlas of Texas German*. Austin: University of Texas Press.
- Guion, S. (1996): "The death of Texas German in Gillespie County," in: Ureland, P.S., and I. Clarkson (eds.), *Language contact across the North Atlantic*. Tübingen: Niemeyer. pp. 443-463.
- Haas, W. (1999): "Sprachwandel in apparent time und in real time," in: Schindler, W. and J. Untermann (eds.), *Festschrift für Elmar Seebold zum 65. Geburtstag*. Berlin and New

- York: de Gruyter. pp. 125-144.
- Himmelman, N. (1998): "Documentary and Descriptive Linguistics," in: *Linguistics*, 36, pp. 161-195.
- Johnson, H., and A. Dwyer (2002): "Customizing the IMDI Metadata Schema for Endangered Languages," in: Austin P., Dry H.A., Wittenburg P. (eds.), *Proceedings of the International Workshop on Resources and Tools in Field Linguistics held in conjunction with the Third International Conference on Language Resources and Evaluation*, Las Palmas, Spain, pp. 5.1-5.4.
- Jordan, T.G. (1977): "The German Language of the Western Hill Country," in: J. Wilson (ed.), *Rice University Studies* 63.3, 59-71.
- Labov, W. (1963): "The social motivation of a sound change," in: *Word* 19: 273-309.
- Labov, W. (1966): *The social stratification of English in New York English*. Washington: Center for Applied Linguistics.
- Labov, W. (1994): *Principles of Linguistic Change: Internal factors*. Oxford: Blackwell.
- McConvell, P. (2002): "Linking resources, linking communities," in: Austin, P., H. A. Dry, and P. Wittenburg (eds.)(2002), *Proceedings of the International Workshop on Resources and Tools in Field Linguistics held in conjunction with the Third International Conference on Language Resources and Evaluation*. Las Palmas, Spain. pp. 1.1-1.14.
- Moore, B.J.R. (1980): *A Sociolinguistic Longitudinal (1969-1979) Study of a Texas German Community, including curricular recommendations*. Ph.D. dissertation. UT Austin.
- Moran, C. (2004): *Phonological Developments in New Braunfels German*. Undergraduate Honor's Thesis. University of Texas at Austin.
- Nettle, D., and S. Romaine (2000): *Vanishing Voices. The Extinction of the World's Languages*. Oxford: Oxford University Press.
- Nicolini, M. (2004): *Deutsch in Texas* (Studien und Quellen zur Sprachwissenschaft Bd. 1), Münster: LIT-Verlag.
- Salmons, J.C. (1983): "Issues in Texas German Language Maintenance and Shift," in: *Monatshefte* 75(2), pp.187-196.
- Salmons, J.C. (1994): "Naturalness and Morphological Change in Texas German," in: N. Bernd and K. Mattheier (eds.), *Sprachinselforschung*. Frankfurt: P. Lang. pp. 59-73.
- Salmons, J.C., and F. Lucht (2006): "Standard German in Texas," in: Thornburg, L., and J. Fuller (eds.), *Studies in Contact Linguistics. Essays in Honor of Glenn G. Gilbert*. Frankfurt/New York: Peter Lang.
- Wagener, P. (2002): "German Dialects in Real-Time Change," in: *Journal of Germanic Linguistics* 14.3, 271-85.
- Wilson, J. (1977): "The German Language in Central Texas Today," in: Wilson, J. (ed.), *Texas And Germany: Crosscurrents*. Rice University Studies, 63 iii, pp. 47-58.