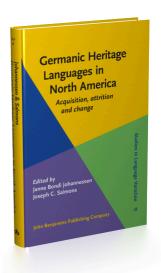
The History of Front Rounded **Vowels in New Braunfels German**

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The history of front rounded vowels in New Braunfels German

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While earlier studies of New Braunfels German (NBG), a dialect of Texas German (TxG), e.g., Eikel (1954, 1966b) and Gilbert (1972), report the existence of front rounded vowels to various degrees, they are almost completely absent from present-day NBG (Boas 2009). This paper describes the history of such vowels in NBG and assesses possible causes of their loss. We first sketch the history of German in Texas, in order to set the stage for the following discussion. We then review the status of front rounded vowels in NBG, as reported by three landmark studies of TxG, namely Eikel (1954), Gilbert (1972), and Boas (2009), and then discuss motivations for their loss. We argue that five major factors drove this loss: (1) the original donor dialects of NBG, (2) the markedness of front rounded vowels, (3) contact with English, (4) limited exposure to Standard German, and (5) the changing linguistic and social contexts of NBG.

Keywords: sound change, Texas German, phonology, front rounded vowels, markedness, language contact

Introduction¹

In his study of New Braunfels German (NBG), a dialect of Texas German (TxG)² spoken in New Braunfels, Texas, a city of approximately 65,000 located about 35 miles northeast of San Antonio, Eikel (1954) reports that words like *Bücher* 'books' and *zwölf*

^{1.} An earlier version of this paper was presented at the 20th International Conference on Historical Linguistics (Osaka, Japan, August 2011). We thank the conference participants for their input and are especially indebted to two anonymous referees, Paul Kerswill, and Joe Salmons for a number of valuable comments.

^{2.} A precise definition of the term "Texas German" is somewhat elusive. Here we use it to refer to a set of varieties of German spoken in Texas descended from the dialects of German brought to Texas in the 19th century.

'twelve' contain front rounded vowels. These vowels are almost completely absent in NBG today; none of the 52 speakers of NBG interviewed for Boas (2009) used a front rounded vowel in *Haarbürste* 'hairbrush,' for instance. In this paper, which builds on Boas (2009), we describe the history of front rounded vowels in this dialect and assess possible causes of their loss, focusing on developments since the 1940s, when the data discussed in Eikel (1954, 1966b) was collected. We connect this change to five major factors: (1) the original donor dialects of NBG; (2) the markedness of front rounded vowels; (3) contact with English; (4) limited exposure to standard German; and (5) the changing linguistic and social contexts of NBG. We begin with some brief remarks on the history of German in Texas, in order to outline the social and historical contexts of our analysis. We then describe the status of front rounded vowels in NBG as described in three major works on TxG, Eikel (1954, 1966b), Gilbert (1972), and Boas (2009), before discussing possible motivations for their changing status.

The first large wave of German settlers to Texas arrived in the early 1840s, and large-scale immigration continued for a number of decades thereafter. By 1860 there were nearly 20,000 German-born immigrants, mostly from northern and central Germany, living in Texas, and approximately 30,000 Texas Germans, including the American-born children of immigrants (Jordan 1975: 54). Although German immigration to Texas eventually slackened, the number of Texas Germans continued to increase: by 1940 there were approximately 159,000 Texas Germans (Kloss 1977).

For the first several decades of German settlement in Texas, the Texas Germans were relatively isolated from non-German speakers, thanks to a number of political and/or social factors (e.g., the abolitionist tendencies of many Texas Germans, which would have set them apart from many of their neighbors in a slave state like Texas).³ This isolation, coupled with serious attempts at language maintenance, allowed for the general retention of TxG. There were numerous German-language church services, newspapers and other periodicals, schools, and social organizations (ranging from choirs to shooting clubs). This situation has since changed dramatically, due to factors like English-only laws; anti-German sentiment; the development of the American interstate highway system in the 1950s, which made the once-isolated TxG communities much more accessible, making it easier for non-German speakers to visit or live in previously monolingual German communities, and for German-speakers to accept employment in more urban areas; and the increasing tendency for speakers of TxG to marry partners who could not speak TxG.

These developments had devastating consequences for TxG. Institutional support for German was largely abandoned; German-language newspapers and periodicals stopped publishing altogether or switched to English as the language of publication; some German-language schools closed and German instruction was dropped in others; and German-speaking churches replaced German-language services with English-language ones. Speakers of English moved in increasing numbers to the traditional

^{3.} Immigrant letters, like those collected in works like Brister (2008), indicate that connections to German-speaking Europe remained strong.

German enclaves, and generally refused to assimilate linguistically to their new neighbors by learning German, while younger Texas Germans left the traditional Germanspeaking areas for employment or education, and began to speak primarily English. Today only an estimated 6000–8000 Texas Germans, primarily in their sixties or older, still speak TxG fluently (Boas 2009), and English has become the primary language for most Texas Germans in all domains.

2. Previous research

We rely on three large-scale studies of TxG: first, the pioneering work of Fred Eikel (e.g., Eikel 1954 and 1966a,b), which is based on data collected in the 1930s and 1940s;⁴ second, Glenn Gilbert (1972), whose fieldwork in the 1960s led to the publication of the massive *Linguistic Atlas of Texas German*; and third, the Texas German Dialect Project (TGDP; www.tgdp.org), directed by Hans C. Boas,⁵ which has been underway since 2001. We focus on these three studies for two major reasons: (1) they are the largest-scale studies of TxG available, and (2) they provide us with a rich pool of real-time data to draw on.⁶

We begin with Eikel (1954, 1966b).⁷ Eikel (1954:26) includes the front rounded vowels, each of which in his view has long and short allophones, in his table of NBG phonemes. About the high front rounded vowels, Eikel (1954:28) writes, "NBG /y:/ is a long, high-front, rounded, open vowel ...," while "NBG /y/ is a short, high-front, rounded, open vowel, as in S[tandard] G[erman]," and he transcribes words like *Bücher* 'books' and *Rüben* 'beets,' with the long allophone and words like *Schlüssel* 'key' and *fünfzig* 'fifty' with the short allophone. As for the mid front rounded vowels, Eikel (1954:29) states, "NBG /ø:/ is a long mid-front, rounded, open vowel, as in sg," and that "NBG /ø/ is a short, mid-front, open, rounded vowel," and he transcribes words like *schön* 'beautiful' and *Öl* 'oil' with the long allophone and words like *zwölf* 'twelve'

^{4.} Other contemporary studies, e.g., Clardy (1954), generally reinforce the description of NBG presented in Eikel (1954, 1966b). For this reason, and because Eikel (1954, 1966b) is a considerably better-known study, we focus on Eikel's work here.

^{5.} See Boas et al. (2010) for details on the design of the TGDP and the resulting Texas German Dialect Archive (TGDA).

^{6.} In the case of the TGDP, for instance, TGDP members have re-recorded Eikel's (1954) and Gilbert's (1972) word and sentence lists and resampled the Gilbert data (i.e., collected data using the same questionnaire), which facilitates comparison. In fact, the TGDP team has to date interviewed two speakers who were also interviewed by Fred Eikel.

^{7.} The relationship between these two works is a bit unclear; Eikel (1966b) is based on the same data as Eikel (1954), and in fact cites many of the same forms. We rely largely on Eikel (1954), but also refer readers to Eikel (1966b), which is readily available via JSTOR (in contrast to Eikel 1954, which is considerably more difficult to obtain).

and gehört 'hear (past participle)' with the short allophone.8 Eikel's data indicates that front rounded vowels were a well-established part of the phonemic system of NBG in the 1940s.9

At the same time, it is also clear that a generational unrounding of originally front rounded vowels was already underway in NBG at the time of Eikel's fieldwork. Eikel (1954: 28) writes, in his discussion of /y:/:

Of the oldest generation of speakers of NBG two round this vowel distinctly and consistently, two show occasions of unrounding, and two do not round at all. Of the twelve informants of the second generation, one rounds consistently, all the others fluctuate, showing more instances of unrounding than rounding. All six informants of the third generation show no signs of rounding. Here /y:/ is completely replaced by /i:/.

He reports the same unrounding process for /y/ and the mid front rounded vowels.¹⁰ Examples of words with front rounded vowels in Eikel's data are given in (1).11

- Front rounded vowels in Eikel (1954)
 - Bücher 'books' [by:çәв], Rüben 'beets' [ry:bən], Bühne 'stage' [by:nə], Gemüse 'vegetable' [gəmy:zə], Hühnchen 'chicken' [hy:nçən], Überzüge 'coatings' [y:bərtsy:jə]
- 8. Note that Eikel transcribes all four of these vowels as tense vowels, as opposed to most current scholars, who would presumably transcribe the short allophones as lax vowels, i.e., [Y] and [ce], respectively. Gilbert (1972) follows the same practice, writing that "[s]ince tense vowels in Texas German ... are at the same time long and raised and non-tense vowels are both nonlong and lowered ..., the symbol [:] will be sufficient to distinguish tense, long, raised vowels from their non-tense, non-long, and lowered counterparts" (Gilbert 1972:6). In addition, Eikel's terminology is not always entirely clear; by "open" he presumably means the feature that more current practice would describe as "tense," and his hyphenated terms "high-front" and "midfront" would be written as "high front" and "mid front" today. Moreover, the vowel chart he provides (Eikel 1954: 26) omits the term "open."
- 9. Clardy (1954: 53) draws a similar conclusion: three of her six informants have, in her view, "all the front rounded vowels as phonemes."
- 10. Clardy (1954) also notes this process: her oldest informant has front rounded vowels in all contexts where they appear in standard German, while her next age group is somewhat less consistent in their use of front rounded vowels, and her youngest informant does not have front rounded vowels. See Boas (2009: 107) for discussion.
- 11. We have modified Eikel's transcriptions slightly in accordance with more current practices. For instance, he transcribes Bücher 'books' as [by:çəR] and describes [R] as "a weak post-velar fricative" (Eikel 1954: 37). We have, however, retained his transcription of all four front rounded vowels as tense. Moreover, Eikel's examples indicate that his informants spoke a version of Texas German that was very close to the standard language. To the best of our knowledge, his examples are indeed representative of the NBG speech community of his time, although at this remove it is impossible to determine this with complete confidence.

- b. /y/: Küste 'coast' [kystə], Brücke 'bridge' [brykə], Schlüssel 'key' [ʃlysəl], Nüsse 'nuts' [nysə], Frühstück 'breakfast' [fry:ʃtyk], fünfzig 'fifty' [fynftsiç]
- c. /ø:/: schön 'pretty' [ʃø:n], bös 'evil, angry' [bø:s], Vögel 'birds' [fø:jəl], Öl 'oil' [ø:l], Brötchen 'roll' [brø:tçən], gewöhnlich 'usual' [gəvø:nliç]
- d. /ø/: *zwölf* 'twelve' [tsvølf], *möchte* 'would like' [møçtə], *könnte* 'could' [køntə], *gehört* 'heard' (p.p.) [gəhøʁt]

The next work to consider is Gilbert (1972). Gilbert's first mention of front rounded vowels in TxG comes as part of a summary of linguistic differences between TxG and Standard German. He writes, "[f]or many speakers, all front vowels are non-round" (Gilbert 1972: 3), indicating that the process of unrounding mentioned in Eikel (1954, 1966b) and Clardy (1954) had been completed for some speakers. The maps collected in Gilbert (1972) paint a similar picture. There are five maps for words that contain front rounded vowels in standard German (map 17, the door/ die Tür; map 18, two daughters/ zwei Töchter; map 19, sweet potatoes/ Bataten, Süßkartoffeln; map 20, two cooking pots/ zwei Kochtöpfe; and map 21, a hairbrush/ eine Haarbürste), and we might therefore expect to find front rounded vowels in these words in TxG.

As these maps all yield the same general results, here we only consider the maps for *die Tür* and *zwei Töchter* (i.e., one form each containing a high front rounded vowel and a mid front rounded vowel). For *die Tür*, all of Gilbert's New Braunfels informants use a high front long unrounded vowel, i.e., [i:]. As for *zwei Töchter*, Gilbert's informants use the rounded variant much more consistently than they did for the high front vowel. In New Braunfels, although one speaker does retain a mid front rounded vowel, other speakers normally unround the vowel to [e:]. The data from Gilbert (1972) is summarized in (2).¹²

- (2) Front rounded vowels in Gilbert (1972)
 - a. Map 17 (*the door/ die Tür*): all of Gilbert's NBG speakers use [i:] in this word (i.e., [ti:r]).¹³
 - b. Map 18 (*two daughters / zwei Töchter*): in New Braunfels, one speaker does retain a mid front rounded vowel, but other speakers normally unround the vowel to [e:]

^{12.} Front rounded vowels had not been lost in these words in all dialects of TxG, and there is also some inconsistency among speakers, as shown by the maps in Gilbert (1972). In Fayetteville (approximately 110 miles northeast of New Braunfels), for instance, there is variation between [y:], [ϵ] and [o:] (and note the differences in vowel length). Also of interest here is that other speakers of TxG (e.g., some in Kendall County, approximately 50 miles west of New Braunfels) backed $/\phi$:/ to [o:], suggesting that vowel frontness was more important for speakers of NBG and vowel rounding was more important to those speakers in Kendall County.

^{13.} Although the lenition of [t] to [d] is a widespread process in TxG, as indicated by maps 8–12 in Gilbert (1972), neither Gilbert (1972) nor Boas (2009) report it for NBG. See also Allen and Salmons (this volume) on obstruents in English and Norwegian.

The most recent treatment of front rounded vowels in NBG is Boas (2009), who notes that front rounded vowels have been almost completely eliminated. Here we again only examine the two forms we considered above when discussing Gilbert (1972), namely *die Tür* and *zwei Töchter*. For *die Tür*, 49 of Boas' 52 New Braunfels-area informants (98%) produced a high front unrounded vowel, i.e., [i:], while one informant produced the high front rounded vowel [y:], and two did not provide any answer. As for *zwei Töchter*, 3 of his 52 informants (6%) produced [ø], 27 (55%) produced [e], 19 (39%) produced [o], and 3 produced *Schwestern* 'sisters' instead of *Töchter*.

In addition to resampling the Gilbert data (fn. 6), Boas and his team also conducted more open-ended interviews with the informants. A search of this data conducted in August 2011 produced much the same results (i.e., the widespread loss of front rounded vowels), albeit with a few twists. There are nine instances of Tür, none of which contain a front rounded vowel (all the informants produced Tier in this context).¹⁵ There are also seven instances of *Töchter*, none of which contain a front rounded vowel (there are three instances of Techter and two each of Tochter and Tochtern). However, some words do have front rounded vowels: there are nine instances of Gemüse in the open-ended data (four with a front rounded vowel, four with a front unrounded vowel, i.e., Gemiese, and one with a back rounded vowel, i.e., Gemuse). In addition, there are 46 instances of zwölf, eleven (24%) of which have a front rounded vowel, while the remaining 35 have a front unrounded vowel (i.e., zwelf). These open-ended interviews are more relaxed than the interviews resampling the Gilbert data, indicating that speakers are presumably not as aware of their speech as they are during the questionnaire portion of the interviews and consequently produce more natural speech. The presence of front rounded vowels in the open-ended interview data therefore suggests that front rounded vowels are still part of the phoneme inventory of NBG, albeit for only a handful of speakers. In (3) we summarize the findings of Boas (2009) with regard to front rounded vowels.

(3) Front rounded vowels in Boas (2009)

a. In the resampled Gilbert data die Tür: 49 of 52 informants (98%) produced [i:], one informant produced [y:], and two did not provide any answer.

zwei Töchter: 3 of 52 informants (6%) produced [ø], 27 (55%) produced [e], 19 (39%) produced [o], and 3 produced *Schwestern* 'sisters' instead of *Töchter*.

^{14.} Unfortunately, not all of Boas' informants were able to remember all the words he was interested in all of the time, presumably due to fading fluency in TxG, age, or general cognitive factors. See also Larsson et al. (this volume) on the question of language attrition vs. second language acquisition in American Swedish.

^{15.} The unrounding process has produced a number of lexical mergers, e.g. between *Tür* 'door' and *Tier* 'animal'.

In the more open-ended interview data:
 Tür: 9 instances (no front rounded vowels)
 Töchter: 7 instances (no front rounded vowels)
 Gemüse: 9 instances (4 front rounded vowels)
 zwölf: 46 instances (11 front rounded vowels)

3. The current analysis

As noted in the introduction, we view the treatment of these front rounded vowels in NBG as the result of several factors, both language-internal and language-external. We begin by looking at a language-internal factor, namely the original donor dialects of NBG (cf. the analysis developed in Boas 2009). Although standard German has front rounded vowels, many of the German dialects do not, as indicated by some of the maps in works like Wiesinger (1970), König (1978), and the Digital Wenker Atlas (Deutscher Sprachatlas 1927-1956). Schirmunski (1962) discusses the development of these vowels in the German dialects in some detail, pointing out for instance that Middle High German [ø] has been unrounded in some dialects (e.g., Hessian, Alsatian, and Mosel Franconian), diphthongized in others (e.g., North Bavarian and Swabian), shifted to [y] in Ripuarian, and retained only in East Franconian and some of the Swiss German dialects (Schirmunski 1962: 238). In other words, there is a widespread absence of front rounded vowels from the German dialects, complemented by their presence in a few pockets. The implication of this distribution for the status of front rounded vowels in NBG is clear: if the donor dialects of German out of which NBG was formed did not contain front rounded vowels, then there would be no reason for NBG itself to contain such vowels. This possibility is also acknowledged by Gilbert (1972: 1, fn 5), who notes that "[m]any, though not all, of the features listed as characteristic of Texas German may be recognized as belonging to certain nonstandard varieties of German that are or were spoken in the Old World."16

Ultimately, however, this solution proves problematic, for at least two major reasons. First, as Boas (2009) notes, it is difficult, if not impossible, to identify the exact donor dialects of NBG, as the necessary demographic information is not available. In light of this, we are unable to point to any specific donor dialect without front rounded vowels as the source of NBG words lacking front rounded vowels that do have such vowels in standard German (or to a specific donor dialect with front rounded vowels as the source of NBG words with front rounded vowels, for that matter). Second, the

16. Salmons (2012: 240, fn. 4) makes a similar point, writing that "[t]hat so many German dialects spoken in the United States and Canada have unrounding is not, for the most part, due to influence from English, as many laypeople believe, but rather the pattern can be traced back to original dialects with unrounding that were imported to the Western Hemisphere. Low German dialects, for instance, did not unround and they have often retained front rounded vowels in diaspora."

data collected by Eikel (1954, 1966b) and Clardy (1954) on NBG indicates that front rounded vowels were indeed present at earlier stages of NBG in greater quantities than they are now. Therefore, even if the original donor dialects were the cause of some of the missing front rounded vowels at earlier stages of NBG, we contend that this factor alone cannot fully account for the current NBG situation, or for the presence of these vowels in some dialects of TxG versus their absence in others.

Beyond this, we point to the special status of front rounded vowels in the world's languages. Such vowels are cross-linguistically very rare - of the 562 languages surveyed by Maddieson (2013), only 37 (6.6%) exhibit such vowels. In addition, such vowels are lost reasonably often, as they have been in the history of English (compare, for instance, OE mys [my:s] with Modern English mice, or OE goes [gø:s] with Modern English geese). These two factors indicate that the front rounded vowels are the most marked of the vowels, and it is therefore not surprising that they are among the first vowels to be eliminated in NBG. This is in the spirit, if perhaps not precisely the letter, of the "Diachronic Maxim" of Vennemann (1988:2), which holds that "[l]inguistic change on a given parameter does not affect a language structure as long as there exist structures in the language system that are less preferred in terms of the relevant preference law." That is, the most marked forms will be eliminated first - exactly what we see in the vowel system of NBG. This also allows us to account for a seemingly casual observation made by Eikel (1954:28), who noted that "individual speakers are consistent: if a speaker unrounds /y/, he invariably also unrounds /ø/." This statement suggests to us that /ø/ is more marked than /y/ - a claim borne out by the observation in Maddieson (2013) that of the 37 languages in his sample that do contain front rounded vowels, 8 of them have only high front rounded vowels, while 6 have only mid front rounded vowels. Although we do not want to draw any firm conclusions based on such a small sample of data, we do find these indications suggestive, and attribute the loss of at least some front rounded vowels to the markedness of these sounds.

Three language-external factors must also be considered, beginning with influence from English. The exact role of English in changes in TxG remains debatable (and that debate cannot be resolved here).¹⁷ In some areas, its influence is clear, e.g., in the lexicon, as there are a number of English loanwords in TxG (Boas and Pierce 2011). In other areas, its influence is less clear. Eikel (1949), for instance, attributes the general loss of the dative case and its replacement by the accusative case in NBG to contact with English. Eikel (1949: 281) does admit that language-internal factors (specifically the original donor dialects of NBG) could have caused this change, 18 but calls contact with English "much more important" than any possible language-internal

^{17.} See also studies like Brown and Putnam (this volume) on the limitations of an approach relying on contact with English, as well as Annear and Speth (this volume) on phonemic overlap and lexical convergence in American Norwegian.

^{18.} If the cause of the NBG situation is the original donor dialects of NBG, then it is more accurate not to describe this as language change, of course.

factors.¹⁹ Boas (2009), on the other hand, offers an account of these changes that takes both language-internal (e.g., the original donor dialects of NBG and the process of new dialect formation (Trudgill 2004)) and language-external factors (e.g., language contact) into consideration.

In the case of front rounded vowels in NBG, at first blush, interference from English could be seen as the main cause of the change. After all, as just noted, English generally lacks front rounded vowels,²⁰ and since there are no monolingual speakers of NBG, they could simply be eliminating a phonemic contrast from one of their languages under the influence of the other. Under this view, the continuing loss of front rounded vowels from Eikel (1954) to Gilbert (1972) to Boas (2009) would be traced to the increasing contact between NBG speakers and English speakers, and the resulting increasing influence of English on NBG from the 1940s to the 1960s to the present day.

On the other hand, if this were the case, we would expect to find the same widespread loss of front rounded vowels in other dialects of TxG, given that there are no monolingual speakers of any dialect of TxG and that speakers of all dialects of TxG have had increasing contact with English speakers since the 1940s. This is not actually what we find, as at least one dialect of TxG exhibits more front rounded vowels than NBG. Specifically, Texas Alsatian, a dialect of TxG spoken mainly in and around the city of Castroville (approximately 60 miles southwest of New Braunfels), recently described and analyzed in Roesch (2012), shows front rounded vowels to a greater extent than NBG.21 Gilbert (1972) identifies eight participants as speakers of Texas Alsatian, and two of his maps lend insight into these speakers' use of front rounded vowels. Map 102, for 'cabbage' (Standard German Kohl), indicates that all eight of these speakers have a front rounded vowel in this word, as their responses were [kry:t], [gry:t], or [syrgrut] (cf. Standard German Kraut).²² Map 19, for 'sweet potatoes' (Standard German Bataten or Süßkartoffeln) shows that five of these eight speakers have a front rounded vowel in this word, while the other three speakers do not.²³ These maps therefore show that Texas Alsatian as spoken in the 1960s had front rounded vowels as part of its phonology.

^{19.} Eikel (1949: 281) also calls the dative case "an überflüssiger Luxus," which lends insight into his views on the causes of language change.

^{20.} Some dialects of English are developing front rounded vowels (Maddieson 2013), but in American English this is a socially restricted development (Salmons 2004) and presumably plays no role in the NBG situation.

^{21.} The source of these front rounded vowels is difficult to pinpoint, since some dialects of European Alsatian lack front rounded vowels (Philipp and Bothorel-Witz 1989), and we leave this issue aside here.

^{22.} We have modified Gilbert's transcription slightly in accordance with more current practice.

^{23.} As there is a great deal of phonetic variation in response to this lexical item, we do not give phonetic transcriptions here.

Consider the same words in present day Texas Alsatian. For 'cabbage,' 22 of Roesch's 27 informants retained [y] in this word, while 1 unrounded it to [i], one was unable to recall the word, and three were not polled on this particular term. As for 'sweet potatoes,' 17 of Roesch's informants retained a front rounded vowel in this word; one unrounded it to [i], albeit not the same informant who showed unrounding in the 'cabbage' word; four produced [patha:dəs], presumably due to interference from English potatoes; two produced forms influenced by standard German Kartoffel 'potato'; two did not know the word; and one was not polled. In (4) we summarize Roesch's results for these two words.

(4) Front rounded vowels in Texas Alsatian

22 informants retain [y] in this word 'cabbage':

1 unrounded it to [i]

1 was unable to recall the word 3 were not polled on this word

'sweet potatoes': 17 informants retain [y] in this word

> 1 unrounded it to [i] 4 produced [patha:dəs]

2 produced forms influenced by standard

German Kartoffel 'potato' 2 did not know the word

1 was not polled

While we do not intend to ignore or minimize the (possible) influence of English, in light of this retention of front rounded vowels in Texas Alsatian, even though it is subject to the same conditions as NBG, and given that other factors are certainly at play here, we see contact with English as a factor reinforcing these ongoing changes, and not as the sole (or even the main) cause of the changes themselves.

Another language-external factor to consider here is the role of Standard German. This factor also must be treated with caution, as the role of standard German in Texas. its effects on the development of TxG, and the question of just how close TxG is to the standard language all remain controversial.²⁴ Two main viewpoints on the status of Standard German in Texas can be found in the relevant scholarly literature, which can be exemplified by Salmons and Lucht (2006) on the one hand and Boas (2009) on the other. Salmons and Lucht (2006) contend that standard German played an important role in Texas, stating that "rank-and-file German speakers, beginning with their arrival in Texas, had remarkable exposure to written and spoken Standard German

^{24.} To take up just the last of these questions, various (and conflicting) assessments of the closeness of TxG to Standard German can be found in the literature, e.g., Wilson (1977:57) claims that TxG "is essentially good standard German," while Gilbert (1965: 102) writes that TxG "deviates in certain characteristic ways from Contemporary Standard German.... Nevertheless it is sufficiently intelligible to the speaker of Standard German to be classed as a colonial variety of the standard language and not as a separate entity."

even far into the twentieth century" (Salmons and Lucht 2006: 167), and muster a sizable body of evidence in support of this claim (e.g., the use of standard German in TxG churches and the existence of numerous Standard German-language periodicals). Boas (2009: 51), however, while conceding that Salmons and Lucht's "observations regarding the important role of standard German in the schools, newspapers, and churches are certainly correct," contends that "the use of standard German in Texas is overestimated." Boas (2009) grounds his arguments mainly in the length of the standardization process, what he sees as the more minimal role played by Standard German in the development of TxG, and the relative lack of exposure of most speakers of TxG to standard German (agricultural pursuits kept many TxG children from extensive school attendance, for example, which limited their exposure to the standard language).

Two separate issues are involved here, namely the role of standard German in the formation of TxG and the impact of the standard language on NBG during the time period addressed in this paper (beginning with Eikel's collection of TxG data in the 1930s and 1940s and continuing to the present day). To the first of these: we do not want to overemphasize the role of the standard language in the formation of TxG pronunciation here. Since German pronunciation was not standardized until around 1900 (Salmons 2012) and was thus not standardized at the beginning stages of the emergence of TxG, there simply was no standard German pronunciation available for speakers of TxG to model their own (TxG) pronunciation on. In light of this absence, it would not be surprising to find less influence from the standard language on TxG pronunciation than on other areas of the grammar (e.g. the case system or word order).²⁵

The role of standard German in Texas during and following the time period in which Eikel collected his data is of more relevance here. Over the course of this time period, although some opportunities for access to the standard language remained, 26 exposure to standard German decreased considerably for speakers of TxG in general and for speakers of NBG in particular, as illustrated by some of the developments mentioned in the introduction, e.g., that German was no longer taught in the schools 27 and that German-language church services were gradually abandoned. The implications for our proposal are straightforward: in our view, extensive exposure to

^{25.} We also point out that Salmons and Lucht (2006) do not address pronunciation in their article, beyond citing the statement from Wilson (1960: 86) that "ministers preach in S[tandard] G[erman] with a very good pronunciation."

^{26.} In the case of church services, for instance, some German-language services were retained, especially on holidays like Good Friday and Christmas (Nicolini 2004), and as of 2010 at least one church still offered a German-language service on 'fifth Sundays' (Roesch 2012). Cf. also the statement from Wilson (1960: 86) cited in the preceding footnote. German was also still taught in some Texas schools.

^{27.} German instruction in the schools in New Braunfels ceased in 1942 (Eikel 1966a: 14).

the standard language with its front rounded vowels would presumably have reinforced the presence of front rounded vowels in NBG. Conversely, limited exposure to Standard German would presumably have reinforced any lack or loss of front rounded vowels in NBG. We therefore contend that the more limited exposure to the standard language since the 1940s typical of most NBG speakers is an additional factor contributing to the loss of front rounded vowels in NBG.

Compare here Salmons (1983: 191), who notes the number of recent immigrants from German-speaking areas to Texas, and concludes that "[o]nly further research can clarify the exact role of these immigrants and the other contacts with contemporary Germany, but important cultural and linguistic contact with Germany must be noted as a factor in TxG language maintenance. Texas Germans have not existed for a century and a half isolated from the rest of the German-speaking world." Although this stance generally remains as valid today as it was in 1983, and we would underscore the role of contact with other German speakers as a possible factor in this area, we also note that these contacts can sometimes complicate matters, as when a class on Texas Alsatian had to be abandoned in 2006 because the two teachers, one of whom was a Texas Alsatian and the other a European Alsatian, could not agree on which version of Alsatian should be taught in the class (Roesch 2012: 28–29).

In line with some of the literature on language death, we also point to a final possible causal factor of vowel unrounding, namely the changing linguistic and social contexts of NBG (Boas 2009). When Eikel's data was collected, NBG was still in a state of language maintenance, although language shift was underway, and the NBG of Eikel's time consequently retained marked linguistic phenomena (like front rounded vowels) to a considerable extent. When Gilbert's data was collected, NBG was also still in a state of language maintenance, but its position was much weaker than it had been twenty years previously (in the 1960s there were approximately 70,000 speakers of TxG, as opposed to over 150,000 speakers in the 1940s). The NBG data collected in Gilbert (1972) therefore shows fewer marked linguistic phenomena like front rounded vowels. By now, the situation has changed radically, and NBG is critically endangered and in fact dying (as noted above).

Nettle and Romaine (2000: 53) point out that gradual language death of the type NBG is undergoing can have profound linguistic consequences: "[w]hen a dying language declines gradually over a period of generations, it ... is not used for all the functions and purposes it was previously. Like a limb not used, it atrophies." ²⁸ In the specific case of NBG, as its linguistic and social contexts changed, NBG speakers simply stopped using the language in various situations, meaning that speakers' fluency declined substantially. ²⁹ As their fluency declined, NBG speakers tended to abandon

^{28.} See also Trudgill (2011) on the linguistic consequences of language death.

^{29.} At times, this atrophy has some surprising results; for example, one TxG speaker from Doss (about 110 miles from New Braunfels) interviewed by Boas seemed to understand all of Boas' questions, but struggled to respond to them, until Boas happened to ask the informant

marked linguistic structures like front rounded vowels in favor of less marked, more English-like structures, as reflected by the considerably greater presence of such vowels in the Eikel data than in the Boas/TGDP data.

4. Conclusion

In sum, then, we trace the decrease of front rounded vowels in NBG from Eikel (1954) to Boas (2009) to the interaction of several factors. First, some NBG words that lack front rounded vowels where standard German has them are not really examples of sound change, as NBG never had front rounded vowels in these words, due to a lack of front rounded vowels in the original donor dialects of NBG. Second, front rounded vowels are highly marked, as reflected by the rarity of such sounds in the world's languages and by their tendency to be lost. Their loss in NBG therefore fits well with the second of these conditions. Third, contact with English reinforced these two ongoing causal factors, presumably increasingly so as English came to play a more dominant role in TxG society; and, on a related note, a relative dearth of exposure to standard German meant that the use of standard German could not really reinforce the use of front rounded vowels in NBG. Finally, the changing social context of NBG, i.e., from a state of language maintenance to a state of language shift, and the accompanying decline in fluency in NBG among speakers, also caused unrounding, as NBG entered what we might label a state of "linguistic meltdown," 30 en route to what we see as its inevitable death.

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about an upcoming hunting trip. It turned out that the informant could speak very fluently and knowledgeably about hunting in TxG, as he had often gone hunting with family members when he was younger and had always spoken TxG on those trips. This informant therefore shows considerable atrophy of his TxG abilities, with the exception of the one area where he seems to have used TxG the most (Boas and Pierce 2011:145).

^{30.} This kind of "meltdown" in TxG has so far mostly been investigated with regard to the lexicon and the morphosyntax (e.g., an increased variability in relative pronouns), largely in as yet unpublished studies. We plan to investigate its phonological effects in future work.

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