“Language mixing”: Lexical borrowing in Wisconsin Heritage German

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Abstract. The current work examines evidence of lexical borrowing in two different audio corpora of Wisconsin Heritage German, one from 1948–1949, and the other from 2012. Six speakers across both corpora show a high rate of retention of inherited, “core” terminology, with the majority of borrowings occurring in instances where English loans fill a semantic gap in speakers’ German lexicon. The study shows first, that changes to the heritage language lexicon in a language contact context are infrequent, overall; and second, that English-origin lexemes are attested often enriching and expanding the heritage lexicon, with additional changes showing semantic shift of inherited terminology in a new environment. These data support previous work on the stability of heritage languages across generations, even through the final generation of speakers, with changes to the lexicon over time occurring in ways consistent with other contact and bilingual settings.

Keywords. borrowing; Heritage German; heritage language; lexicon; loanwords

1. Introduction. Lester W. J. “Smoky” Seifert’s Wisconsin German Questionnaire (1946) was part of a project spanning many years, intended not only to document German spoken in Wisconsin, but also to find instances of what Seifert called “language mixing” (Seifert 1951). This article focuses on Wisconsin German words for animals, comparing English-to-German translations from three speakers in Seifert’s recordings from the late 1940s, with data elicited from a guided picture narration task completed by three consultants in eastern Wisconsin, in 2012. Results from both groups of speakers show primarily a maintenance of pre-immigration lexical items – including evidence of dialectal terms from non-standard German varieties; and speakers also incorporate cultural loans for North American animals not indigenous to Europe (cf. Myers-Scotton 1993; Matras 2009). The data also include less frequent instances of English imposition of lexical items that replace existing pre-immigration German vocabulary. These results suggest that the Wisconsin German lexicon does not exhibit a diachronic progression along a clear maintenance-loss cline; rather, data suggest a combination of lexical maintenance, lexical borrowing, and semantic shift characteristic of tendencies for language change in contact varieties.

This article begins with a discussion of the corpora, speakers, and sociolinguistic context of both corpora, in §2. The methods and theory are outlined in §3, followed by the presentation of the data, in §4. §5 provides a summary of the findings presented here, and a brief comment on the place of this article within a body of related scholarship.

2. Corpora, speakers and sociolinguistic context. The data were gathered from two audio corpora, recorded roughly 70 years apart in areas of southeast Wisconsin. The first is the Seifert Corpus, which includes interviews recorded by Lester W. J. “Smoky” Seifert between 1946 and 1949. The current study focuses on six[1] speakers identified by Seifert as speaking High German.

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[1] The corpus contains dozens more speakers and as much as 30+ hours of interview data that has not yet been transcribed or analyzed.

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These speakers were born between 1864 and 1901, and grew up during the period of peak German immigration to the US, when it was common to have German use in churches, and in parochial schools, especially in the so-called "summer schools", where children attended German-language religious instruction for a few weeks during the summer months. These classes were independent of children's regular schooling, and it was not uncommon at this time for children to attend public school in English, and then summer school in German, as described in (1):

(1) Albert Molders, SEI_037 (Bousquette 2020: 499)

Hmm, ja, sie gingen des Sommers nach die deutsche Schul und des Winters nach die englische, das sind unsere Gemeinde aber in die [City?] Gemeinde da ham se ganzes, reine, reine Gemeinde hat ganz Jahr rum deutsche Schule gehabt.

'Hmm, yeah, they went to the German school in the summer and to the English one in the winter. That was our communities, but in the city there they had German school throughout the year.'

Many of the speakers in the Seifert High German Corpus (n=6) recorded in 1948–1949 were heritage speakers (HSs) of a non-standard German HL, and later exposed to Standard German in school, or in the community (Bousquette 2020: 494; cf. Petty 2013). In this sense, they were proficient speakers of multiple varieties of German, typically a non-standard variety acquired at home, and the standard variety acquired through institutional support (cf. Nützel 2009; Keel 2015: 148). Speakers across southeast Wisconsin report their last usage of German in school being in the 1940s and early 1950s (Litty & Bousquette forthcoming).

In religious domains, German congregations began to offer regular services in English at the beginning of the 20th century, with many of them switching entirely to English in the following decades. Still, the shift from German to English for church services occurred slowly, over many generations in some cases. For example, the first mention of a sermon delivered in English in the church records of Bethany Evangelical Lutheran in Hustisford, Wisconsin was in 1893, as an isolated event; English did not fully replace German in that particular congregation until 1975 (Wilkerson & Salmons 2012: 14). In other cases, the switch to English language services occurred while there were still German-proficient congregants attending the German-language services, as was the case in Lebanon, Wisconsin, at Immanuel and St. Peter's Lutheran Churches (Lucht 2007: 35–38). That decision to switch to English was made because it became difficult to find pastors who could preach in both German and English (Lucht et al. 2011: 366).

In the domestic sphere, many of the speakers in the Seifert Corpus report receptive or passive bilingualism among their children's and grandchildren's generation, as in example (2).

(2) Emma Würzel, SEI_057 (Bousquette 2020: 500)

Nich diese jetzt. Diese Grosskinder nich, die verstehns, aber antworten English.

'Not these now. Not these grandchildren. They understand it, but they answer in English.'

The domestic sphere is regularly the domain most resistant to shift, and the last to shift to English; as early as the late 1940s, the community was entering the late stages of language shift, as the language was no longer being passed on to the next generation. Language shift occurred within the span of one or two generations, meaning that proficient, bilingual HSs raised English monolingual children (Wilkerson & Salmons 2012; cf. Brown 2022). The social and home domains retained German the longest. German persisted in local businesses and public social gatherings into the 1950s and 1960s – and German remained in use until 1988 in social contexts in southern

and southeastern Wisconsin (Bousquette & Litty forthcoming). In limited and sporadic households, the use of German persisted into the 21st century as a moribund variety, i.e. German is no longer being passed on in Wisconsin.

The second set of data comes from the German in America corpus, recorded in the early 2000s. While the corpus does include multiple interviews from across Wisconsin, primary data comes from interviews conducted in 2012 in rural, agrarian, eastern Wisconsin. This part of the corpus includes 41 interviews with speakers aged 65–99 years at time of recording, and constitutes a social network in which HSs interacted with one another in multiple domains –primarily socially, as well as in church. Use of German in the 21st century varies greatly from speaker to speaker: some speakers use German infrequently, while others speak it daily (cf. Sewell 2015), but all use of German is restricted largely to social contexts, especially between family members. Investigated here is the language of three Wisconsin-born HSs of German, who had acquired the language at home before entering predominantly English-speaking domains at church, school, and ultimately, at work. Following the loss of German in formal religious and educational domains, German literacy is uncommon, and many speakers acquired and speak the non-standard, pre-immigration varieties of their 19th century ancestors, rather than Standard German (Bousquette 2020). As such, all three speakers analyzed here exhibit features of Rhenish/Mosel Franconian consistent with the input dialects of their ancestors, and attested across the region, including the absence of the High German consonant shift in expected environments, and dialectal pronunciations such as palatalized *g* in *jelesen* for *gelesen* 'read.PP'; speakers also exhibit common gender in place of a masculine/feminine distinction, use of non-standard pronouns that more closely resemble Dutch than Standard German (Bousquette 2014). Language shift from German to English is all but complete in eastern Wisconsin, as the language is no longer being passed on to subsequent generations, and the last HSs are advanced in age.

3. Method and theory. The Seifert Corpus contains interviews with at least 54 individuals, though some speakers are unknown, and some recordings contain multiple speakers. Each individual has 2–14 recordings on file, and each audio file is maximally 15 minutes long, because of the limitations of the contemporary technology. The interviews were predominantly English-to-German translation tasks based on the Wisconsin German Questionnaire (Seifert 1946), though some interviews do feature some limited biographical information about the interviewee, and there is also the occasional instance of extended, unstructured speech. Sections 17–20 and section 30 of the Questionnaire specifically test the same set of animal terms in Wisconsin German; among the six speakers identified by Seifert as speaking High German, only two completed part or all of these sections. A third speaker was included for the current study, and though Seifert did not list them as speaking High German, this individual was identified by name by one of the six speakers in that High German sub-corpus. We could therefore assume some degree of familiarity. This speaker completed section 30 of the Questionnaire.

Data from the 2012 German in Wisconsin corpus was elicited with a guided picture narration task, using *Frog, Where Are You?* (Mayer 2003). The complete story contains six possible lemmas: frog, dog, bee(s), groundhog, owl, deer. Speakers occasionally provided two different Heritage German equivalents for the same lexical item, and speaker HD seems to have skipped the page with the owl and bees. Two of the speakers are related, and all three are speakers of a West Central Franconian-derived variety.

In terms of comparability, the Seifert Corpus and German in America speakers were selected to be as internally consistent as could be achieved with previously-recorded material, meaning: 1) that speakers in both corpora were part of extended social networks of heritage speakers, who have

previously been identified as speaking related heritage varieties (and were in some cases related by blood or marriage); and 2) that the two corpora contained at least some shared lexical items in the same lexical-semantic category of fauna. In comparing the Wisconsin German Questionnaire and *Frog, Where Are You?* there are three shared lexical items: bee, frog, and owl.

Following Myers-Scotton (1993), Matras (2009), and Annear & Speth (2015), the lexical items are divided into *core* terms, for which there is an existing term in the borrowing language, like Frog ~ Frosch; and *cultural* terms, which do not have an equivalent in the borrowing language, like Groundhog ~ Ø. Borrowing a core term is uncommon, in that it would replace an existing term, like hawk > *der Hawk* replacing *der Habicht* 'hawk'. Borrowing a cultural term is expected, because it fills a semantic gap, like *groundhog*, *gopher* > *der Groundhog*, *der Gopher*, since groundhogs and gophers are North American animals. Without an identical species in pre-immigration Europe, there is no equivalent lexeme in the inherited German variety. Still, speakers occasionally exhibit a sort of semantic shift, applying autochthonous terms to new/related referents, like *de Marmot* 'the marmot' for 'groundhog', or *das Reh* 'European Roe Deer' for the North American species. This is, of course, a historical semantic argument, and Mark Lauersdorf (p.c.) has suggested that *Marmot* and *Reh* may, in fact, be the appropriate terms for these speakers. For this very well-reasoned argument, our focus is not on the specific, cognitive pairing of the signified and signifier, but rather on the competing strategies of using either a German- or English-origin term to refer to North American fauna, which were at one point novel to speakers in the German community. A similar example would be the use of English *robin*, which refers to both an Old World Flycatcher in Europe, and a Red-breasted Thrush in North America; the latter use in American and Canadian English would be a native term to children acquiring the language today, but nevertheless is derived from a semantic shift that previously occurred within the speech community (cf. Salmons 2018).

4. Data and analysis. The study is designed around two fundamental questions: 1) is there an existing lexical item in the speaker's pre-immigration variety; and 2) do speakers use a lexical item from their heritage language (German), or from the hegemonic variety (English)? The binary 2x2 set of permutations yields four possible outcomes. Essentially, if a lexical item already exists in speakers' variety of German, then their options are to either use the existing German term (e.g. der Frosch 'the frog'), or replace the core German terminology with an equivalent English term (e.g. der Hawk 'the hawk'). On the other hand, if there is no existing word in speakers' variety of German, then they may adopt the English term (e.g. der Groundhog), or use an existing German lexical item which refers to a similar or related animal (e.g. de(r) Marmot). This typology of lexical items in Wisconsin Heritage German allows us to first, measure the frequency of German- or English-origin nouns; and second, to identify exactly the nature of lexical borrowing, as it occurs either in assumed stable domains (core terminology); or in domains more conducive to borrowing (cultural terminology).

The main point, of course, is that migration from Europe to North America means traversing from one discrete region and distinct latitude to another, resulting in a high likelihood that speakers will encounter novel flora and fauna, or morphologically distinct variants of related organisms. By design, the study involves lexical items for animals that are both known in Europe (dog, frog, bees) and also animals that are endemic to the Americas (groundhog).

In terms of the grammatical structure of the target lexical items, we see that even the English-origin lexemes are integrated into a German grammar (cf. Meyers-Scotton 1993; Riksem et al. 2019). For German nouns, this means that they have an inherent masculine, feminine, or neuter grammatical gender; and they form the plural using a licit German strategy of nominal suffixation,

vowel mutation, or both. Provided in (3a-c) are three example translations from speaker Roy Anselm (003_3B), who uses three English-origin terms for the prompt provided by Seifert.

(3) a. Da ist eine Owl in den Baum.
there is an owl-FEM in the tree
'There is an owl in the tree.'

b. Der Hawk hat ein Huhn gefangen.
the hawk-MASC has a chicken caught
'The hawk caught a chicken.'

c. Ich habe eine Crow geschossen.
I have a crow-FEM shot
'I shot a crow.'

In these examples, *Owl* and *Crow* are marked as feminine, and *Hawk* as masculine. Grammatical gender is inherent to the noun in German, and invariable across use, i.e. whether nominative, genitive, dative, or accusative, *Owl* and *Crow* are always feminine and *Hawk* is always masculine for this speaker. Clearly, this speaker interprets *Owl, Crow,* and *Hawk* as German nouns, and accesses them from his mental lexicon as possessing grammatical features specific to German and distinct from English, despite the phonological similarity to the English lexical items, *owl, crow, hawk*.

In addition to grammatical gender, Roy Anselm also uses a variety of German strategies to form the plural on nouns. While the singular-plural distinction is shared with English, the specific strategies used to mark the plural as distinct from the singular are consistent with German – even when using cognates and possible loans – signaling the use of German grammar. This recording contains 8 nouns appearing in both the singular and plural form: *squirrel, mouse, rat, bird, owl, crow, frog,* and *mosquito*. Of these eight, three use vowel mutation to form the plural: *die Maus ~ die Meis* 'mouse, mice'; *der Vogel ~ Vegel* 'bird, birds'; and *der Frosch ~ die Fresch* 'frog, frogs'. This pattern is consistent with Standard German, albeit with consistent, non-standard unrounding of the diphthong in *Meis* < *Mäus(er),* and of the front, rounded vowel in *Vegel* < *Vögel*, and *Fresch* < *Frösche*. Given the transparency of the vowel mutation as marking a distinction in number, the suffixes *-er* and *-e* are redundant morphological markers, so their absence relative to Standard German is unremarkable, especially given the tendency in German(ic) to phonetically reduce material in prosodically unstressed position. The other five plurals are formed using suffixation, four of them using the *-en* plural: *die Eichkatz ~ Eichkatzen* 'squirrel, squirrels'; *die Ratz*[2] *~ Ratzen* 'rat, rats'; *eine Owl ~ Owlen* 'owl, owls'; *eine grosse Moskito ~ die Moskiten* '(a big) mosquito, mosquitoes'. This list contains a number of items that are certainly cognates, if not English loans outright, and they still take the unambiguously German *-en* suffix, rather than the English *-s* plural e.g. for *rats, owls, mosquitoes*. Lexical items that were originally borrowed into German are not uncommonly assigned autochthonous plural morphology, even if they have features that mark them as non-German in origin, such as an (originally) full vowel in unstressed position (*das Thema ~ die Themen* 'the theme(s)'), or non-word-initial stress (*das Museum ~ die Museen* 'the museum(s)'). The single instance of *-s* plural suffixation from this speaker's data is on *eine Crow*

[2] A reviewer noted that *der Ratz* is a southern dialectal form, with the plural *die Ratte*, so the use of *die Ratz ~ die Ratzen* here may be a mixed form. It's also possible that this singular form is a back formation of the plural *Ratzen* 'rat.PL' > *Ratz* 'rat.SG' on the understanding that *-en* marks the plural, and on analogy to other plural forms attested in the corpus, e.g. *der Spatz ~ die Spatzen* 'sparrow(s)', *die Eichkatze ~ die Eichkatzen* 'squirrel(s)', *die Wanze ~ die Wanzen* 'bed bug(s)'.

~ *die junge Crows* ‘a crow, the (young) crows’. Superficially, this looks like an English-like plural marker on what’s clearly a borrowing from English into German (cf. die *Krähe, die Rabe* in Standard German). However, *-s* is also the default plural marker in German when other plural strategies don’t apply, particularly for lexical items that end in an open syllable with a non-schwa vowel – an extremely uncommon phonotactic shape in German – or for recent and transparent loan words that have not been incorporated into other German paradigms, e.g. *der Kaffee ~ die Kaffees* ‘coffee(s)’, *das Taxi ~ die Taxis* ‘taxi(s)’*, die Kamera ~ die Kameras* ‘camera(s)’; cf. *die Pizza* ‘pizza’, which has both the default *-s* marker in *Pizzas* ‘pizzas’, and also the more common German suffix *-en*, in *Pizzen* ‘pizzas’.

In light of the data on grammatical gender and pluralization, we can view the data on fauna in Wisconsin Heritage German as being German in their structure and use, regardless of whether different theoretical frameworks would determine these to be integrated loans with a strong emphasis on the role of the Lexicon (Matras 2009; Myers-Scotton 1993), or the product of a more active, computational grammar (Riksem et al. 2019).

4.1. ANIMAL TERMINOLOGY: SEIFERT CORPUS. Data is presented below for three speakers in the Seifert Corpus, using a 2x2 grid, denoting the combination of a) whether there exists an equivalent term in German (or not); and b) whether the speaker uses an existing German- or English-origin lexical item. The prevailing trend is for speakers to use core German lexemes when they are available (26 total lemmas), and to use English loans when no equivalent exists in German (5 total lemmas); data are presented in terms of type frequency, so tokens repeated multiple times by the same speaker are counted only once. Exceptions to this trend total six lemmas between semantic shift and core borrowings, and are discussed in more detail below.

Speaker SEI_34, pseudonym Rudolph P. Monthe, was a bilingual carpenter, born in South Leeds, WI in 1877 to two monolingual parents from Prussia. His data (Table 1) show the expected pattern, preserving the inherited terms for *Kieh* ‘cows’ and *Stier* ‘bull’, and adopting English terms into his German for pests endemic to North America.

	Lexeme exists in German (core)	Lexeme does not exist in German (cultural)
German term used	Kieh, Stier	
English term used		Armyworms, Cutworms, Sheatsbugs

Table 1. Rudolph P. Monthe_SEI_34

More extensive data is available for Roy Anselm (SEI_003[3]) and CLSF (SEI_031), shown in Tables 2 and 3. Both show the prevailing trend, including German-origin terms for the majority of the English words given by Seifert in the interview prompt, e.g. *squirrel, mouse, cat, rat, bird,* etc., though Roy Anselm does use a few English-origin lexical items for core German ones, such as *eine Owl, der Hawk, eine Crow,* and *die Grasshopper,* while CLSF uses almost exclusively German lexemes, with the exception of *Firefliegen* ‘fireflies’, which is an obvious loan translation of *firefly*, replacing German *Glühwürmchen* or *Leuchtkäfer*.

[3] The Seifert Corpus contains multiple recordings demarked by SEI_003, which refer to three two-sided 45rpm records, identified by the initials “R. A.”, written by Seifert in pencil on the record sleeves. No other information about the speaker has been identified, either in Seifert's field notes nor in the content of the recording, but Bousquette (2020) argues that the designation SEI_003 may contain recordings from two different speakers; used here are data from one of these two speakers.

	Lexeme exists in German (core)	Lexeme does not exist in German (cultural)
German term used	die Eichkatz, die Maus, eine Katze, die Ratz, der Vogel, die Spatzen, die Sperling, ein Huhn, der Frosch, eine Krott, eine Bien, Ameisen, Hummel, Schmetterling, eine Motte, Wanzen, Fledermaus, Regenwurm	
English term used	eine Owl, der Hawk, eine Crow, die Grasshopper, Bed bugs	einen Moskito, Sheatsbugs

Table 2. Roy Anselm_SEI_003

	Lexeme exists in German (core)	Lexeme does not exist in German (cultural)
German term used	Eichkatze, die Maus, e Katz, die Ratte, der Vogel, die Sperling, e Eule, Hähner[e]dieb, Raubvogel, eine Kräh, Schwalben, der Frosch, a Biene(r), Ameise, Heuschreck, Schmetterling, Motten, Wanzen, Fliegen, Fledermaus	die Micke
English term used	Firefliegen	

Table 3. CLSF_SEI_031

It's worth noting that there is a decided prevalence of Standard German forms and pronunciation, though there are still attested non-standard forms, and a degree of variation. For instance, one speaker uses typical Austrian *Heuschreck* instead of *Heuhüpfer* or *Grashüpfer* 'Grasshopper'; two speakers use southern/Austrian *Eichkatz(e)* rather than *Eichhörnchen* 'squirrel'; there are three different words for 'sparrow' (*Schwalben, Sperling, Spatzen*), and two different forms for 'hawk', including *Hähnerdieb* (lit. 'chicken-thief') and *Raubvogel* (lit. 'robber-bird') alongside the English loan. The variation in lexicon between even two or three speakers suggests a heterogeneous population, with some lexemes having very specific regional connotations. Still, these connections are to regions of Europe, and to maintenance of non-standard pre-immigration varieties, along with Standard German terminology.

There are two additional terms worth mentioning in greater detail: mosquitoes, and *Sheatsbugs*. Roy Anselm and CLSF employ different strategies to identify a mosquito, which is a species of blood-sucking, parasitic insect not found in Europe. Roy Anselm uses the English term (with masculine gender, in German), *Moskito*; while CLSF uses the term *die Micke*, which in Standard German (*die Mücke*) originally referred to a gnat or midge fly, which do not bite. We do not have sufficient diachronic data specific to these speakers' lived experience to say whether these were recent innovations, or acquired in these forms and with the specific referent. However, what's clear is that these speakers represent both strategies – loan incorporation and semantic shift – for negotiating the interaction with novel species in a new environment.

The second lexeme worth noting is *Sheatsbugs*, which is a term used by all three speakers in natural conversation, either in unstructured conversation or in response to open-ended questions, but not used during translation tasks. They are described as pests, but distinct from bed bugs – that

is, they are not 'sheets bugs' – since *Wanzen* is used as a direct translation of that term. Edna Fern's "Ein Farm-Idyll in Süd-Missouri" is a part-fiction-part-memoir that takes place just after the end of the American Civil War, and draws heavily on her own personal experience living in a remote farming community (Kluge 2007). She describes *Chinchbugs* as pests that ate up ("fraßen") a good amount of their crops, and glosses them as 'Blattwanzen'; they are a family of pests commonly known as 'shield bugs', or 'stink bugs' – both of which bear some phonological similarity to *sheatsbugs/chinchbugs*. The perceived need to gloss the term for a German-speaking literary audience confirms that they are a novel insect, and that *Sheatsbugs* or *Chinchbugs* is an innovative, cultural borrowing from English into American German.

4.2. ANIMAL TERMINOLOGY: GERMAN IN WISCONSIN. The data from the German in Wisconsin corpus includes six possible targets elicited from a guided picture narration task: frog, dog, bee(s), groundhog, owl, and deer – though some speakers provided multiple terms for the same referent, and one speaker skipped a page in the book, so data is reported on the sum total of the number of discrete lexemes provided by each consultant. Results from speakers recorded in 2012 are consistent with the Seifert data, in that the most common trend is for speakers to maintain core lexemes, including both Standard and non-Standard lexemes (14), followed by the tendency to use a borrowed (and grammatically incorporated), cultural loan from English, for novel fauna (4). There is also one instance of semantic shift (Marmut < Marmot for 'groundhog') and one instance of an English term (wasp) being used for the bees that attack the boy and his dog – though the same speaker also used *Wesperl* (wasps) and *Binne* (bees). The combination is shown in Table 4.

	Lexeme exists in German (core)	Lexeme does not exist in German (cultural)
German term used	'frog': Frosch/Frisch 'dog': de Hond/Hund 'deer (stag)': en Hersch/de Hisch 'bees, wasp': Biene/Binne/Wesperl 'owl': en/de Eil	Marmut
English term used	Wasp	Groundhog, Woodchuck

Table 4. German in Wisconsin (combined data)

One striking feature of the data is the prevalence of non-standard forms and pronunciation for all of the German terms, including *Frisch* for 'frog', *Hond* for 'dog', *Hisch/Hersch* for 'stag', *Binne* and *Wesperl* for 'bees' (and 'wasps'), and *Eil* for 'owl' – and especially *Hond, Wesperl,* and *Eil* look more like Standard Dutch *hond, wespen*, and *uil* than they do Standard German or English. Phonological similarity with the Rhenish/Mosel Franconian input dialects further supports language maintenance consistent with the southern German lexical items in the Seifert Corpus, in that these forms suggest an uninterrupted transmission of non-standard regional varieties spoken in Europe, with minimal affects from English. In the case of the two related speakers in the 2012 recordings, the non-standard, pre-immigration variety was maintained across five generations.

In terms of comparing the six speakers in two corpora spanning 70 years on the shared elicitation forms (frog, bee, owl), there is only one instance in the Seifert corpus of an English term being used; the rest adhere to a pre-immigration form.

5. Discussion and conclusion. The prevailing trend in the data shows that speakers maintain core terminology across multiple generations, with very few exceptions; and that semantic gaps are filled with novel terms adopted from speakers' English L2, or adapted from existing, core

terminology through semantic shift. Consistent with Myers-Scotton (1993), Matras (2009), and Annear & Speth (2015), these data suggest that changes to the HL lexicon occur in predictable ways, and that borrowing is largely limited to cultural contexts, where the HL lexicon is enriched and expanded through the incorporation of new lexemes from English. The data also support Born (1994), Nützel (2009), Lucht (2007), Keel (2015), Bousquette (2020), Bousquette & Putnam (2020), and others, in demonstrating the prevalence of non-standard pre-immigration forms, showing that dialectal lexemes and pronunciation are attested in the speech of those born in Wisconsin in the 19th century, and also in the speech of those recorded in the early 21st. The use of these terms strongly suggests uninterrupted transmission of the heritage variety across as many as five generations, with limited interference from even the Standard German used in church and in school by many of the speakers – especially by those in the Seifert Corpus. Lexical borrowing from English into Heritage German does occur, of course, but these are limited primarily to contexts of cultural borrowing, where there is no existing German-origin term to supplant. In that sense, the use of English-origin loans to fill a semantic gap in the heritage lexicon is natural and common in bilingual settings, and constitutes natural language change. But by identifying cultural loans as the majority of all English loans, distinct from the relative infrequency of core borrowings, we further add to a narrative of lexical stability, where Wisconsin German maintains inherited German terminology, while expanding to reflect environmental changes over the 19th, 20th, and 21st centuries.

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