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Towards a systematic methodology for comparing extraterritorial German contact varieties

Abstract: This paper proposes a systematic methodology for comparing and analyzing the same linguistic phenomena across different extraterritorial varieties of German. Adopting insights from Construction Grammar and Frame Semantics, this paper discusses how corpus data from different extraterritorial varieties of German can be analyzed to gain a better understanding of the factors contributing to the distribution and development of specific types of constructions in the context of language contact and language change. Focusing on one particular morpho-syntactic phenomenon (case syncretism), this paper demonstrates how the notion of grammatical construction (a pairing of form with meaning/function) can be used for a systematic comparison and analysis of the same language contact phenomenon across different extraterritorial varieties of German.

Keywords: comparative language island research, language contact, Construction Grammar, Frame Semantics, case syncretism

1 Introduction

This paper addresses a number of issues regarding methods for analyzing extraterritorial contact varieties of German (*Sprachinseln* 'language islands'). One of the main goals of the paper is to outline a more systematic approach to analyzing linguistic phenomena not only in single extraterritorial contact varieties of German, but to analyze similar phenomena across different varieties. Such a comparison will both help us understand more about the nature of both internal and external factors in language contact and language change, and lead to a more

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coherent method of structural comparison between individual extraterritorial varieties of German.[1]

The paper is structured as follows. Section 2 reviews several different approaches to analyzing extraterritorial German contact varieties and discusses some technical, methodological, and analytic drawbacks of these approaches. Most of the data in this paper involve a particular type of phenomenon, namely case syncretism in extraterritorial contact varieties of German. Section 3 outlines an alternative approach to analyzing extraterritorial contact varieties of German by adopting the core principles of Construction Grammar (Fillmore & Kay 1993, Goldberg 1995/2006) and Frame Semantics (Fillmore 1982/1985, Fillmore & Atkins 1992). At the core of this proposal is the concept of construction, a pairing of form with meaning/function, similar to the linguistic sign as proposed by Saussure (1916). Based on data from a variety of extraterritorial contact varieties of German, I will show how the notion of construction allows us to arrive at a more systematic inventory of linguistic units in contact varieties of German. I will also argue that the concept of construction facilitates a systematic comparison of linguistic phenomena across different contact varieties of German. Finally, Section 4 summarizes the paper and provides an outlook on future research.

2 Prior approaches to analyzing extraterritorial German contact varieties

2.1 Documenting German contact varieties

The last 60 years have seen different types of approaches to analyzing extraterritorial contact varieties of German. One of the most prominent approaches follows a particular tradition in German dialectology known as the *Marburg School*, founded by Georg Wenker (1852–1911) (Wenker 1881/1886, Fleischer 2017). Based on a questionnaire consisting of 40 invented German sentences that he sent out to schoolmasters throughout the German Reich in the 1870s and 1880s, Wenker compiled more than a thousand dialect maps representing phonological, lexical,

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and (to some degree) morpho-syntactic variation in the different varieties of German (Kretzschmar 2017).[2]

The methodology used by Wenker and his successors to create the *Sprachatlas des Deutschen Reiches* has also been adopted for the documentation and analysis of extraterritorial contact varieties of German.[3] One prominent example is Gilbert's (1972) *Linguistic Atlas of Texas German*, which follows the *Marburg School* in that it documents different phonological, morphological, syntactic, and lexical features on 148 different maps illustrating regional variation in Texas German.

Gilbert's (1972) map number 33 in Figure 1 (below) captures the regional variation of the realization of the (Standard) German pronoun *ihr* ('her') in the sentence *Gib ihr zwei Stück!* ('Give her two (pieces).'), which is realized differently across central Texas, for example as *ihr*, *die*, and *her*. Gilbert's data in Figure 1 are an example of case syncretism, where the dative pronoun *ihr* is not always realized as it is in Standard German. Instead, some Texas German speakers use the determiner *die*, which marks the accusative (or nominative) case. Morpho-syntactic differences such as those reported by Gilbert (1972) in Texas German have been observed widely in extraterritorial contact varieties of German as they constitute one of the most frequently reported structural changes and almost always involve case reduction when compared to an earlier stage in time, if not loss of case inflection altogether.

Gilbert's (1972) methodology differs from that of the original research by Wenker and his successors in that he did not send out written questionnaires to local schools to have teachers fill them out according to the way their students (allegedly) speak.[4] Instead, the *Atlas* is based on primary data collected by Gilbert conducting linguistic fieldwork across central Texas, during the interviews on tape (which he later transcribed), or he transcribed the speech of the Texas German speakers directly during the interview.

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2 Wenker's research also faced critique regarding several points including the following: questionnaire bias (his method might have introduced biases); oversimplification of dialect boundaries (dialectal variation seems to be more complex and gradual); focus on a specific point in time (language is always evolving); lack of qualitative data (quantitative data was prioritized over qualitative insights); and standardization bias (a focus on features that deviate from Standard German, thereby inadvertently reinforcing the idea that Standard German is the norm, thereby marginalizing non-standard dialects). See Barbour & Stevenson (1990).

3 For other earlier research on extraterritorial contact varieties of German not in the tradition of the Marburg School, see Schmeller (1855), Lessiak & Pfalz (1918), and Schweizer (1939) on Cimbrian, Schirmunski (1927) on Russian German varieties, and Eikel (1949) on Texas German.

4 Wenker prepared a list of 40 sentences, which he sent to schoolteachers across the German-speaking countries, asking them to translate the sentences into the local dialect. The results are not always reliable, as some schoolteachers were not native speakers of the local dialect of their students (see Kehrein 2012).

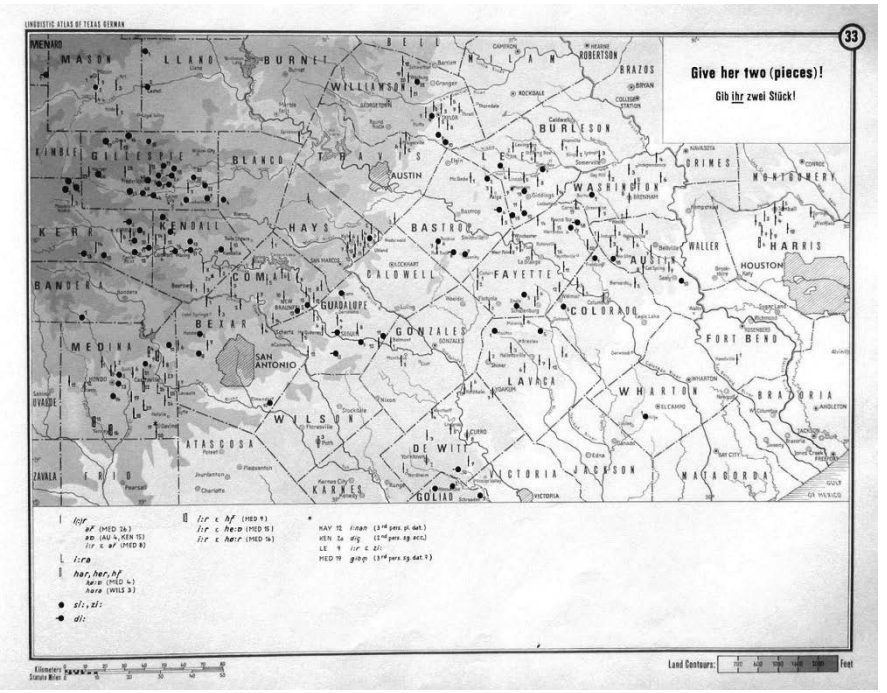

Fig. 1: Gilbert (1972), map #33 "Give her two (pieces)! / Gib ihr zwei Stück!"

One of the advantages underlying Gilbert's *Atlas* is that it is based on primary linguistic fieldwork data that formed the basis for the creation of the 148 dialect maps. In the early 2000s, Gilbert donated the original tapes of his 1960s fieldwork recordings to the Max Kade Institute at the University of Wisconsin in Madison, and the tapes were subsequently digitized for further use. In addition, in 2018 Gilbert donated his remaining linguistic field notes and transcriptions of interviews on paper to the Texas German Dialect Project (Boas 2007/2021b) at the University of Texas at Austin. The availability of the audio recordings and transcriptions of the interviews make it possible to cross-check Gilbert's (1972) analyses with the primary fieldwork data.

Besides the *Marburg School*-type research on extraterritorial contact varieties of German, there are also numerous edited volumes such as Berend & Jedig (1991), Berend & Mattheier (1994), Keel & Mattheier (2003), and Putnam (2011) containing individual papers on a variety of different linguistic aspects of various German contact varieties. There are also a significant number of book-length works providing more comprehensive analyses of individual extraterritorial German contact varieties, including Jedig (1966), Nuetzel (1993), Altenhofen (1996),

Kaufmann (1997), Franke (2008), Boas (2009a), Roesch (2012), Keiser (2012), Burns (2016), Louden (2016), and Shah et al. (2023). These works each focus on a specific extraterritorial German contact variety and typically provide analyses of specific morphological, syntactic, phonological, or lexical phenomena, while also touching on sociolinguistic aspects. More specifically, they primarily aim to determine the inventory of particular linguistic units (sounds, syllables, case markers, word order constructions, etc.) and then analyze how the distribution and interaction of these linguistic units have changed over time or how they differ from other varieties of German (typically Standard German). Such analyses often involve a discussion of the influence of internal and external factors on particular linguistic changes.

For example, case syncretism of the type documented in Texas German by Gilbert (1972) is also found in various contexts in different extraterritorial contact varieties of German as the following examples in (1)–(7) illustrate (SG = Standard German).

(1) German in Russia

In	*die*	*Felder*	habn	se	geschaffen.	
in	the	fields-NOM/ACC	have	they	worked	
In	den	Feldern	haben	sie	geschafft.	SG
in	the	fields-DAT	have	they	worked	

'They worked in the fields.'
(Berend & Riehl 2008)

(2) Michigan German

Der	waor	bei	*sei*	*Leit*.	
he	was	with	his	people-NOM/ACC	
Der	war	bei	seinen	Leuten.	SG
he	was	with	his	people-DAT	

'He was with his people.'
(Born 2004)

(3) Springbok German

Und	viele	von	*die*	*Schwarzen*	koenn	auch	Afrikaans.	
and	many	of	the	blacks-NOM/ACC	can	also	Afrikaans	
Und	viele	von	den	Schwarzen	können	auch	Afrikaans.	SG
and	many	of	the	blacks-DAT	can	also	Afrikaans	

'And many of the blacks can also speak Afrikaans.'
(Franke 2008)

(4) Barossa German

aus	*die*	*Kasse*	
out of	the	cash register-NOM/ACC	
Aus	der	Kasse	SG
out of	the	cash register-DAT	

'Out of the cash register.'
(Riehl 2016)

(5) Pennsylvania German

wann ich	*sie*	die	Blumen	bringe	deet.	
when I	her-NOM/ACC	the	flowers	bring	would	
Wenn ich	ihr	die	Blumen	bringen	würde	SG
when I	her:DAT	the	flowers	bring	would	

'When I bring her the flowers.'
(Huffines 1994)

(6) Low German in Brazil

Die	Hoor	op	*minen*	*Kopp*	sin	grau.	
the	hair	on	my-ACC	head	are	gray	
Die	Haare	auf	meinem	*Kopf*	sind	grau.	SG
the	hair	on	my-DAT	head	are	gray	

'The hair on my head is gray.'
(Rosenberg 2005)

(7) Kroondal German

Den	helfen	wir	gerne.	
that-ACC	help	we	gladly	
Dem	helfen	wir	gerne.	SG
that-DAT	help	we	gladly	

'We're happy to help him.'
(Shah et al. 2023)

The examples of case syncretism in (1)–(7) are only from a synchronic perspective, i.e. they present a snapshot of the present case marking systems in the various extraterritorial contact varieties of German without providing information about prior stages of the contact varieties. In contrast, Boas (2009a/2009b) provides a more detailed analysis of case syncretism in Texas German to show that case syncretism is not a regular or coherent phenomenon. One data set used for his analysis involves older data from the 1960s that formed the basis for Gilbert (1972) and data

recorded more recently by the Texas German Dialect Project (TGDP) (Boas et al. 2010; www.tgdp.org), as shown in Table 1. Comparing Gilbert's historical data with data resampled 50 years later allows us to detect a number of different changes in Texas German.

For example, map 51 in Gilbert's (1972) *Atlas* shows the distribution of accusative versus dative case marking following the preposition *über* ('over') in the sentence *Das Bild hängt über dem Bett* ('The picture hangs over the bed.'), where the noun phrase following the proposition would be marked dative in Standard German and other German dialects. Gilbert's map 51 shows for Comal County that 87% of his informants used the accusative case while 13% used the dative case.[5] In contrast, Boas (2009a) finds that all 49 speakers (100%) in Comal County recorded by the TGDP between 2001 and 2008 exhibit accusative marking (as in *über das Bett* 'above the bed').

A comparison of the historical Gilbert data with the more recent TGDP data might at first glance suggest that case syncretism in Texas German has progressed significantly between the 1960s and the early 2000s, a development already highlighted by Salmons (1994). In this connection, Boas (2009a: 197–199) also observes a similar trend towards reduced dative case marking following other two-way prepositions in Texas German, including *auf* ('on'), *unter* ('under'), *neben* ('besides'), and *im* ('in'), as Table 2 shows.

Tab. 1: Case marking following *über* in *Das Bild hängt über dem Bett* (Gilbert 1972, map 51; Boas 2009a: 198)

	Gilbert	Fuller & Gilbert	TGDP Informants	TGDP Total
Akk	13 (87%)	85%	24, 25, 26, 27, 28, 29, 30, 32, 33, 34, 35, 60, 71, 75, 76, 77, 78, 79, 80, 82, 83, 84, 85, 96, 107, 108, 110, 123, 124, 125, 128, 129, 138, 139, 153, 155, 159, 160, 161, 164, 165, 167, 168, 169, 170, 171, 172, 173, 174	49 (100%)
Dat	2 (13%)	9%		0
None				3
Other				0

5 Fuller and Gilbert (2003) report on the results of a mail-in questionnaire from 1965, with 255 respondents from 62 counties across central Texas.

Tab. 2: Comparison of case marking among two-way prepositions in Texas German (dative case is expected from the perspective of Standard German) (Boas 2016: 27)

		Gilbert (1972)	TGDP (2001–2008)
über	AKK	87%	100%
	DAT	13%	0%
auf	AKK	20%	93%
	DAT	80%	7%
unter	AKK	80%	93%
	DAT	20%	7%
neben	AKK	73%	97%
	DAT	27%	3%
im	AKK	87%	95%
	DAT	13%	5%

These data (as well as other data not discussed here), strongly suggest that the accusative is in the process of replacing the dative case in Texas German.[6] A similar observation was already made by Wilson (1960), who pointed out the following for Texas German spoken in Lee and Fayette counties: "The most noticeable inflectional feature is the absence of the dative and genitive cases, for which the accusative serves."[7]

However, as Boas (2009a: 205; 2016: 27) observes, there are some data regarding the use of two-way prepositions that call this proposed process of case syncretism into question. More specifically, Boas (2009a/2016) investigates the distribution of accusative and dative case markers in contexts in which one expects accusative case marking (in Standard German) and finds that a significant number of speakers use dative case marking in contexts in which accusative would be used in Standard German, see Table 3.

6 Whether this development is due to language change or attrition cannot be answered anymore because of a lack of reliable historical data (as well as metadata about speakers).

7 For a similar observation, see Eikel (1949). On the possible influence of Standard German on Texas German, see Boas & Levina (2024).

Tab. 3: Development of case marking in contexts in which one would expect accusative (Boas 2016: 27)

		Gilbert (1972)	TGDP (2001–2008)
über	AKK	27%	79%
	DAT	73%	21%
auf	AKK	27%	84%
	DAT	73%	16%
unter	AKK	87%	96%
	DAT	13%	4%
neben	AKK	80%	87%
	DAT	20%	13%
in	AKK	93%	95%
	DAT	7%	5%

A comparison of the data from Gilbert (1972) and the more recent data from the TGDP in Table 3 show several interesting points.[8] First, what is commonly called case syncretism is not a uniform (synchronic) phenomenon that applies the same way across all morpho-syntactic linguistic units, as each preposition comes with its own unique distribution of accusative versus dative case marking properties. For example, Gilbert (1972) shows that *auf* is marked with accusative in 27% of the data and 73% with dative, while *in* is marked with accusative in 93% of the data and with dative in only 7%. This distribution seems to suggest that case syncretism is not a regular phenomenon affecting all members of a particular class (here two-way prepositions) in the same way. Instead, one needs to follow a more nuanced usage-based bottom-up approach to case syncretism that takes into account the various differences in case marking properties with each member of the same class. In other words, case syncretism is not as regular a process as previously thought.

Second, the data in Table 3 show that the linguistic change under way is not a regular diachronic phenomenon as it seems to affect different members of the class of two-way prepositions in different ways. For example, there is a significant change in the case marking properties documented by Gilbert (1972) for *auf* when compared with the newer data recorded by the TGDP. Accusative marking following *auf* increased from 27% to 84%. In contrast, accusative marking following *in* shows relatively little change as it increased only slightly from 93% to 95%. This

8 Note that the data from Gilbert (1972) as well as the resampled data recorded by the TGDP since 2001 are both elicited as translation tasks, where speakers are asked to translate the same English sentence into Texas German.

difference shows that changes in the distribution of accusative versus dative case markers following two-way prepositions do not follow the same path. Instead, they suggest that each of the five two-way prepositions in Table 3 follows a different path, meaning that it is difficult to arrive at a generalization about the rate of change among case-marking properties of Texas German two-way prepositions.

Third, and perhaps most interesting, the data in Table 3 demonstrate that a significant number of Texas German speakers use dative marking in contexts in which accusative marking would be expected in Standard German. This distribution is most pronounced in Gilbert's (1972) data and is somewhat reduced in the more recently recorded TGDP data. That a significant number of Texas German speakers employ dative case marking in contexts in which one would expect accusative case marking suggests that there is no clear distinction in case marking properties following two-way prepositions.

2.2 Problems with analyzing extraterritorial German contact varieties

The discussion above raises a number of different problems. In what follows, I will discuss three types of problems, namely what I call the (1) descriptive problem, (2) the analytical problem, and (3) the causation problem. Where appropriate, I will suggest ways of addressing some of these problems before turning to a more coherent proposal for a unified comparative approach to analyzing and comparing extraterritorial contact varieties of German.

2.2.1 The descriptive problem

Any type of linguistic analysis depends on the availability of appropriate data. When conducting linguistic fieldwork, linguists typically record native speakers and then use these recordings for their analyses to publish their findings. While many publications undergo a rigorous process of peer review, it is often not possible for the reviewers to reproduce an author's analysis because the primary field data are not available to them. This situation is less than ideal, because after publication of the findings, it is also not possible for colleagues to check or reproduce an analysis because the primary field data are not made available.

One way of solving this problem is to make the primary field data (together with other materials such as transcriptions and metadata) available to the scientific community by depositing them in a freely available online archive such as the Texas German Dialect Archive at the University of Texas at Austin or the *Archiv für*

Gesprochenes Deutsch at the *Leibniz-Institut für Deutsche Sprache* in Mannheim.[9] Other options include larger more general online linguistic repositories such as TROLLing at the University of Tromsø.[10] When using data deposited in these online archives, authors refer to specific unique file identification numbers or DOIs in their publications, which allows peer reviewers and readers of the publications to access the primary field data online in order to reproduce an author's analysis.

For example, Table 1 above includes specific numbers of speakers recorded by the TGDP, which makes it possible to find the recordings that form the basis of the analyses in Table 1. Thus, the online availability of linguistic field data allows for the reproduction of linguistic analyses proposed in the literature. To overcome the descriptive problem in comparative speech island research, it is necessary for each researcher to archive their field recordings (with appropriate permissions) in an online repository so that colleagues can access them to reproduce their findings.

2.2.2 The analytical problem

A good portion of the analytical problem is related to the descriptive problem, because there is still no effective unit of comparison that allows us to compare the same phenomena across different extraterritorial contact varieties of German. Take, for example, Riehl's (2016) analysis of case syncretism in Barossa German, which is based on a sub-corpus of 20 speakers with a total of 72,200 transcribed words. Riehl (2016: 257) points out that her sub-corpus includes 1051 instances of case marking that would require dative case in Standard German. Out of the 1051 instances, only 457 (30.4%) exhibit dative marking, 941 (67.7%) do not exhibit dative case marking or they show an incomplete dative marking, and 103 instances (6.8%) show accusative instead of dative case marking.[11]

While Riehl's data and analysis provide a valuable contribution to our understanding of case marking properties in Barossa German, they are, in their current state, only of limited value for the following reasons. First, without having access to the primary linguistic field data, it is not possible to reproduce Riehl's analysis and results.[12] Second, Riehl's (2016: 257–258) description of the data

9 See https://agd.ids-mannheim.de/index.shtml.

10 See https://site.uit.no/trolling/about/.

11 Other recent analyses of case syncretism in German contact varieties include Yager et al. (2015) and Zimmer (2020).

12 Plans are currently under way for archiving the latest Barossa German recordings with the *Archiv für Gesprochenes Deutsch* with the IDS Mannheim.

provides only a glimpse of the different case markings in her data, because we learn that 114 of the 457 examples of dative case marking occur following verbs, the rest following prepositions. However, Riehl does not provide any information about which verbs and which prepositions mark the dative case in which contexts and whether the case marking in noun phrases occurs only on bare nouns, nouns preceded by determiners, nouns modified by adjectives, or nouns modified by adjectives that are preceded by a determiner. These differences raise the question of what should be counted as "dative" marking and whether different types of dative markings (or, case markings more generally) should be regarded as belonging to a coherent category "dative" case marking.

The situation becomes more complex when one attempts to determine how a specific linguistic phenomenon occurs in different extraterritorial contact varieties of German and whether the phenomenon is similar or different across multiple varieties. For example, to find out how Riehl's (2016) findings about case syncretism in Barossa German differ from case syncretism in Russian German, several different publications can be consulted. One such publication is Rosenberg (2018), who discusses in detail different types of case markings in contexts in which one would expect dative case marking from the perspective of Standard German. Based on his analysis of transcribed interviews, Rosenberg (2018: 266) finds that the dative in a Russian German variety in western Siberia is drastically reduced: "Der Kasuszusammenfall ist in der Nominalflexion hochfrequent: Während er beim Definitartikel geringer ist (50% Dativ-Output), wird beim Adjektiv kaum Dativ markiert, der Output ist bei Dativ-Input und Akkusativ-Input nahezu gleich."

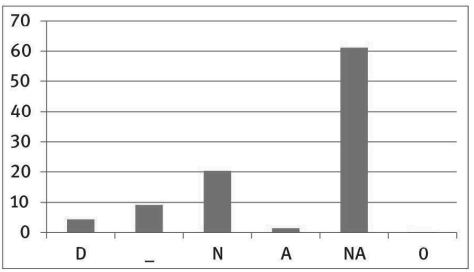

Fig. 2: Case-marking on adjectives in contexts where dative is expected in Standard German. (in %, n=699) (Rosenberg 2018: 266)[13]

13 D: dative case marking; _ : reduction of case marking (no case ending, e.g. *de*), N: nominative case marking; A: accusative case marking; NA: nominative-accusative case marking (e.g. *die*); DA: dative-accusative case marking (*mi* / *di*); +: additional form; 0 : no case marking.

Rosenberg's (2018) analysis of case syncretism provides detailed insights into the distribution of case marking on adjectives (as well as determiners, nouns, and pronouns), but it does not offer any more specific observations about the contexts in which the six different case marking options in Figure 2 appear. In other words, Rosenberg's statistical analysis is helpful for getting a bird's eye perspective of the distribution of different case markers on adjectives in contexts in which one would expect the dative case in Standard German, but it remains silent about the exact nature of these different contexts. Ideally, one would like to know more about the specific sentence-level and phrase-level contexts in which the case-marked adjectives appear.

The discussion of case-marking properties following different two-way prepositions in Texas German in Section 2.1 above shows that it is exactly the nature of the different contexts that appear to have an influence on the distribution of case. As Tables 2 and 3 above demonstrate, each two-way preposition differs from other members of the same class in how it marks case. This is only one particular context in which case is marked on adjectives, other contexts include dative-governing prepositions and double object constructions. This means that there are several different contexts in which case is marked on adjectives (as well as determiners and nouns) and each different context appears to come with a different distribution of case markers. In my view, Rosenberg's (2018) abstract statistical findings (together with the unavailability of the primary field data that form the basis for these findings) make it difficult to gain any deeper understanding of the true nature of case syncretism, because they do not take the many different contexts into account in which the various case marking strategies are used. The same holds for Riehl's (2016) analysis of case syncretism in Barossa German.

When trying to compare a linguistic phenomenon across different extraterritorial contact varieties of German, we see another aspect of the analytical problem. For example, comparing Riehl's (2016) analysis of case syncretism in Barossa German with Rosenberg's (2018) analysis of Russian German is challenging, because of the different ways in which the two authors analyze and present their data. Without having more detailed information about the exact contexts in which the different case marking strategies are applied, it is difficult, if not impossible, to arrive at deeper insights about how similar or different case syncretism is at work in the two contact varieties.[14] My observations so far show the need for a more detail-oriented analysis and presentation of the data that also includes the relevant

14 Note that Standard German is used in this paper only for comparative purposes in order to establish a baseline (based on Standard German) for case-marking properties among different German contact varieties.

contexts in which a particular linguistic phenomenon is embedded. In Section 3, I outline the cornerstones of such a usage-based comparative bottom-up approach.

2.2.3 The causation problem

Finding explanations for language contact and language change phenomena can be relatively easy. For example, in the case of lexical borrowings the origin is fairly obvious, namely the contact language (for an overview, see Poplack & Sankoff 1988, Matras 2002, Clyne 2003, Winford 2003, Boas & Pierce 2011, Durkin 2020). Thomason & Kaufmann (1988) expand the concept of borrowing to cover also other types of linguistic structures. They propose a borrowing scale of five different stages, each representing an increasing intensity of contact as well as an increasing typological distance. For example, stage 1 involves only casual contact that results in lexical borrowings. Stage 2 involves slightly more intense contact, which results in slight structural borrowings as well as conjunctions and adverbial particles. Stage 3, more intense contact, results in slightly more structural borrowings such as adpositions and derivational affixes, according to Thomason & Kaufmann (1988).

While explanations for lexical borrowings are typically easy to identify, finding explanations for the causes for other types of contact-induced changes is much more complicated.[15] In the literature, one can typically find two types of explanations for the causes of contact-induced language contact, namely internal factors, which relate to a "regular" internal development of the recipient language, and external factors, where a change in the recipient language is due to language contact with a donor language.[16]

One example of an explanation of contact-induced change involving external factors that result in case syncretism in an extraterritorial German contact variety is Huffines (1992: 178), who suggests that "the influence of English is realized indirectly, not through wholesale adoption of English syntax, but often by the selection and manipulation of Pennsylvania German rules within its own system, rules which more closely parallel English rules." Similar explanations for case

15 In the 1950s, Haugen (1953) and Weinreich (1953) looked beyond purely structural factors to account for different types of contact-induced language by also considering the role of non-structural factors such as social class, ethnicity, and cultural identity, or, as Thomason (2019: 117) puts it: "language contact is a social phenomenon with linguistic consequences."

16 Thomason (2020: 35) points out that sometimes "there may be no plausible historical explanation at all for a particular change or set of changes. [...] Our goal in analyzing linguistic changes, always, is to arrive at the best available historical explanation for a change. But in many cases [...] no historical explanation is available."

syncretism caused by external factors (influence from English) have been proposed by Eikel (1949) for Texas German and Born (1994) for Michigan German. In this view, the almost complete absence of a case-marking system in English (the donor language) influences an extraterritorial contact variety of German (the recipient language) in such a way that over time the more complex case marking system of the recipient language becomes reduced, resulting in case syncretism.

Rosenberg (2005/2018), who points to comparative data from Brazil and Russia, has questioned the influence of external factors leading to case syncretism in extraterritorial contact varieties of German. He points out that Russian has a case-marking system involving six cases and shows that despite the larger number of cases of the donor language one nevertheless finds case syncretism in the German varieties (recipient languages) spoken in Russia. Thus, he concludes, reduction of the case system should not be attributed to contact-induced change with Russian: "Ein Transfer der Kasusstruktur aus der Kontaktsprache scheidet also als Erklärung aus, wenn man Erscheinungen eines völligen Zusammenbruchs des Kasussystems bei Angehörigen der jüngsten Generation einmal ausnimmt, die als Zweitsprachlerner (teils sogar als Fremdsprachlerner) des Deutschen zu gelten haben." (Rosenberg 2018: 273)[17] In other words, case syncretism in Russian German should be attributed to internal instead of external factors.

At the same time, however, Rosenberg (2018: 276-77) points out that the situation might be more nuanced, because of his comparative data from Brazilian German that is in contact with Brazilian Portuguese. Rosenberg observes that both Brazilian German and Russian German show clear signs of case syncretism, but that dative marking in Russian German is more prevalent than in Brazilian German. He attributes this difference to the fact that the two contact languages differ in their case systems: While Brazilian Portuguese does not have a very pronounced case system, Russian makes clearer distinctions between case markings, and it has six cases. In other words, Rosenberg argues that while the primary forces leading to case syncretism in Brazilian and Russian German are internal factors at play, the structural differences in the contact languages affect the two contact varieties to different degrees. This means that an account of the causes of case syncretism in Brazilian German and Russian German views internal factors as the primary factor at play, while external factors appear to play a secondary role (see also Van Ness 1996 and Thomason 2004, 2020 for a discussion of internal and external factors in

17 A transfer of case structure from the contact language is therefore ruled out as an explanation, except for when on regards instances of the complete breakdown of the case system by members of the youngest generation, who, should be regarded as second language learners (in part even as foreign language learners). (Translation HCB).

contact-induced change). Our discussion shows that sometimes it is necessary to conduct a comparative analysis of different contact varieties to determine whether a given linguistic change is caused by internal or by external factors.

In summary: Our brief discussion of the descriptive problem, the analytical problem, and the causation problem has shown several important points. First Rosenberg (2018) is the only approach so far dedicated to developing a uniform descriptive apparatus for comparing two extraterritorial German contact varieties. However, based on a comparison with Riehl's study of a third variety, Barossa German, it is clear that Rosenberg's results are difficult to compare with Riehl's (2016) results, because of the unavailability of the primary source data and a lack of fine-grained distinctions regarding the different contexts in which case syncretism takes place. The same point can be made about the other German contact varieties discussed above. Second, without detailed specifications about the various contexts in which case syncretism takes place it becomes difficult to compare case syncretism across different varieties. Third, without being able to carefully study the different contexts in which case syncretism takes place in different extraterritorial German contact varieties one cannot arrive at a clearer understanding of the influence of internal and external factors causing this change. In other words, we need a comparative approach with a more coherent set of descriptive and analytical categories as well as a more systematic methodology that allows comparisons to be made on the basis of the same contexts in which case syncretism occurs. In what follows, I will provide a rough outline of the cornerstones of an approach that seeks to overcome the problems discussed above.

3 Towards a unified methodology and theory

3.1 Archiving and searching for data

As already mentioned above, it is important for researchers to process and archive their fieldwork data in a way that they become accessible to other colleagues. This is an important step to ensure the integrity of the peer review process for publications based on the fieldwork data. In addition, it will allow other researchers to review the primary fieldwork data to reproduce analyses that rely on them. Depositing the data (together with any transcriptions and metadata) in a freely available online archive such as the Texas German Dialect Archive (see Boas et al. 2010; Boas 2021b) at UT Austin or the *Archiv für Gesprochenes Deutsch* (see Wagener 2005, Stift & Schmidt 2014, Schmidt 2017) at the *Leibniz-Institut für Deutsche Sprache in Mannheim* will also ensure that they are permanently available

and not in danger of being lost. Another advantage is that the archived data can be re-used by colleagues to address other research questions that the person recording the data in the first place might not have thought about (obviously, with attribution of the person recording and depositing the data).[18]

Having the various corpora of extraterritorial contact varieties of German readily available online makes it possible to systematically search for particular linguistic phenomena such as case syncretism.[19] For example, using a search interface capable of querying multiple corpora at the same time, one can search for the various contexts in which the dative-marking preposition *mit* ('with') occurs in the transcriptions of the recordings of various online archives.

A keyword-in-context search for *mit* results in a complete list of all the contexts in which the preposition occurs in the transcripts of various online archives. Because of space constraints, we focus here only on the data in the Texas German Dialect Archive available via ZuMult (which in November 2024 contained about 1.2 million tokens) as an example, similar types of results can be obtained for the online archives of other extraterritorial contact varieties of German as well.[20] Figure 3 shows a screenshot of a small excerpt of the results of the CQP query, where the preposition *mit* is marked in red at the center of the screen, so that it becomes possible to examine the various contexts in which it occurs. The unique file numbers in bold on the left side indicate the file in which an example sentence is located. Clicking "Open transcript" leads the researcher to the full transcript of the recording, together with the audio of the recording.

18 There are various online archives of extraterritorial German contact varieties available. Most archives, such as the Texas German Dialect Archive, the Linguistic Atlas of Kansas German at the University of Kansas, and the *Audioatlas Siebenbürgisch-Sächsischer Dialekte* at the LMU Munich (Krefeld, Lücke & Mages 2016) contain sound recordings and accompanying materials (transcriptions, metadata, maps, etc.) of only one specific extraterritorial German contact variety. In contrast, the *Archiv für Gesprochenes Deutsch* at the *IDS Mannheim* contains a multitude of different collections of extraterritorial German contact varieties from Australia, Canada, Mexico, Namibia, Russia, and the United States (for details, see Boas & Fingerhuth 2018).

19 Each project typically has its own system for processing, transcribing, and archiving its data. For a discussion of the various workflows, technical specifications, and transcription guidelines, see Blevins (2022).

20 For information about ZuMult, see Fandrych et al. (2022).

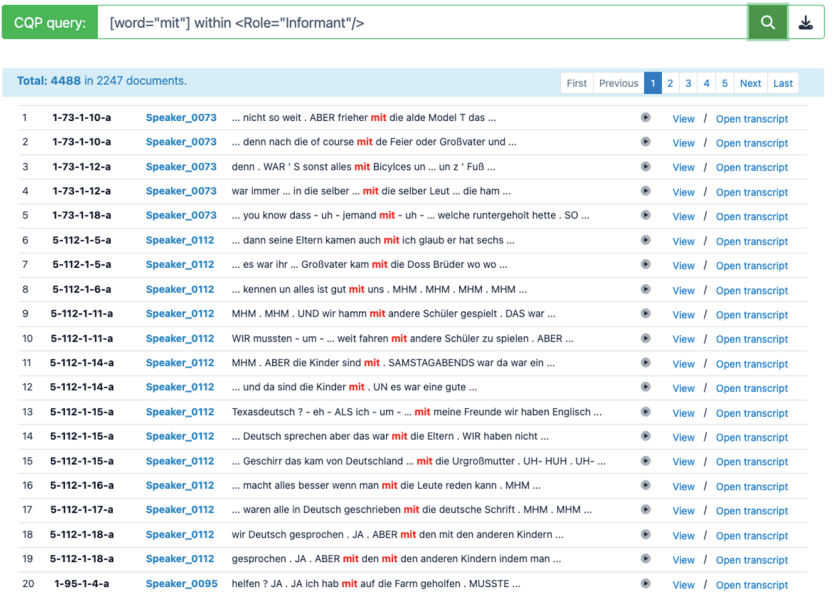

Fig. 3: Screenshot of CQP query for *mit* in the TGDA via ZuMult

Figure 3 shows, for example, two instances of case syncretism in Texas German, namely *mit meine Grosseldern* ('with my grandparents'; expected dative form following *mit*: *meinen*) in the first line and *mit die Kinder* ('with the children'; expected dative form following *mit*: *den Kindern*) in the second line from the bottom. Being able to query different archives of extraterritorial varieties of German for the same linguistic phenomenon allows researchers to obtain comparable primary data on a phenomenon such as case syncretism. In other words, researchers have a reliable empirical basis for determining and comparing the nature of a linguistic phenomenon in different extraterritorial contact varieties of German. Before turning to the details of such a comparative analysis, I propose in the following subsection the adaptation of a set of theoretical foundations that will facilitate such a comparison.

3.2 Construction Grammar and Frame Semantics

Construction Grammar (CxG) developed in the 1980s and 1990s out of the desire for a comprehensive (ideally full) coverage of linguistic phenomena within a single theoretical framework (Fillmore et al. 1988, Fillmore & Kay 1993, Goldberg 1995).

The main concept in CxG is that of a construction, a conventionalized pairing of form with meaning/function, similar to Saussure's (1916) concept of the linguistic sign, as illustrated in Figure 4.[21] Note that the form side of a construction may include syntactic, morphological, and phonological properties, while the meaning side of a construction may include semantic, pragmatic, and discourse-functional properties.

CxG is a usage-based approach, i.e. it aims to model what a language user needs to know in order to fully produce and understand language (see Fillmore et al. 1988).[22] On the constructional view, the architecture of grammar is non-modular and non-derivational and all of language consists of constructions (form-meaning pairings) at different levels of abstraction and schematicity, organized in networks of different types (Goldberg 2006, Bybee 2013, Diessel 2019, Boas 2021c). In Goldberg's (2003: 219) words: "the totality of our knowledge of language is captured by a network of constructions." Unlike some other frameworks, CxG does not distinguish strictly between "the lexicon" and "syntax," but rather regards the types of regular, semi-regular, and irregular linguistics phenomena as on a continuum.

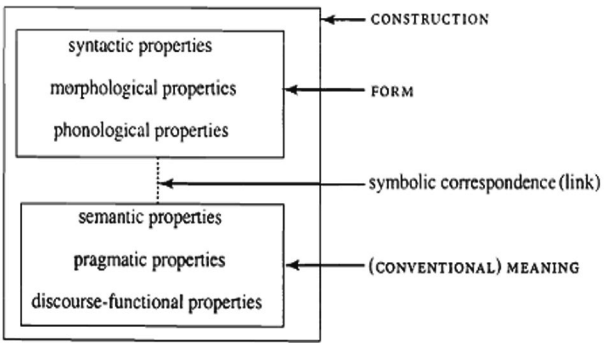

Fig. 4: Types of information in constructions (Croft 2001: 18)

21 Goldberg (2006: 5) defines a construction as follows: "Any linguistic pattern is recognized as a construction as long as some aspect of its form or function is not strictly predictable from its component parts or form other constructions recognized to exist. In addition, patterns are stored as constructions even if they are fully predictable as long as they occur with sufficient frequency."

22 For a discussion of how the usage-based approach can be applied to contact linguistics more generally, see Höder (2014), Höder & Boas (2018), and Backus (2020).

Tab. 4: German constructions at different levels of schematicity/abstraction (Boas & Ziem 2018a: 16)

Constructions	**Examples**
Morphemes	*-er* [*größ-er*] ('tall-er'); *-er* [*Trau-er*] ('sad-ness')
(complex) words	*trauig* ('sad'), *Junge* ('boy'), *Weberknecht* ('daddy longlegs')
Multi-word units	*Guten Tag*! ('Good afternoon!')
Grammatical phrasemes	geschweige denn ('let alone')
Proverbs	*Morgenstund hat Gold im Mund* ('The early bird catches the worm')
Idioms	*Jdm. an die Gurgel gehen* ('to be at each other's throat')
Comparatives	*jdm. x-er desto y-er* [*je mehr desto besser*]
	('the –er, the –er', 'the more, the better')
Double-object constructions	[[NP_{Nom}][VP][NP_{Dat}][NP_{Acc}]]
Parts of speech	[NOUN]

Table 4 shows an ordered inventory of different types of constructions illustrating the continuum between what has traditionally been called "the lexicon" and "syntax." Some constructions such as words and morphemes are very specific whereas others, such as argument structure constructions or word order constructions are regarded as more abstract and schematic. Words as well as idioms and double-object (ditransitive) constructions count as pairings of form with meaning, or, in Goldberg's (2006: 18) words: "it's constructions all the way down."

Since CxG regards all of language in terms of constructions, it is important to understand how utterances and sentences are produced (and understood). On the constructional view, a construct (a specific sentence or utterance) is licensed whenever different constructions are compatible with each other, thereby licensing a construct. Consider, for example, Table 5, in which the construct *Die Blumen duften stark* is licensed by eleven different constructions.

Tab. 5: Constructions instantiated by *Die Blumen duften stark* ('The flowers have a strong scent.') (Boas & Ziem 2018a: 20)

Types of constructions	**Instances**
Intransitive construction	[[*Die Blumen*]$_{NP}$ [*duften*]$_{V}$]
[[X]$_{NP}$ [Y]$_{V}$]	
VP construction[1]	*duften*
[[X]$_{V}$ ([Y]$_{NP}$) ([Z]$_{PP}$)]	

Types of constructions	Instances
AdvP construction	*stark*
[[X]$_{Adv}$ ([Y]$_{Adv}$)]	
NP construction	[[*die*]$_{def\text{-}Pr.}$ [*Blumen*]$_{N}$]
Plural construction	[[Blume-]$_{root\text{-}morph}$ [-n]$_{infl\text{-}morph}$]
[[X]$_{N\text{-}root\text{-}morph}$ [-Y]$_{infl\text{-}morph}$]]	
Verb-inflection construction2	[[duft-] [-en]]
[[X]$_{V\text{-}root\text{-}morph}$ [Y]$_{infl}$]	
Lexical constructions	[*duften*], [*die*], [*Blume*], [*stark*], [*aber*]

Note:
[1] Even though we are dealing here with an intransitive construction, the VP construction offers options for licensing direct and indirect object Nos in cases involving transitive and ditransitive verbs.
[2] The verb-inflection construction will need to access a subject-predicate agreement construction that licenses the verb's proper inflectional ending.

The information displayed in Tables 4 and 5 above only present the form side of the constructions, but not their meaning sides. Most meaning structures of constructions in CxG are modeled in terms of Frame Semantics, the sister theory of CxG that was developed by Fillmore (1982, 1985) and subsequently applied to the creation of a large-scale lexicographic database of English, called FrameNet (Fillmore et al. 2003, Ruppenhofer et al. 2016, Fillmore & Baker 2010), whose architecture consists of semantic frames. Over the next two pages, I provide a brief outline of Frame Semantics and FrameNet and discuss how its insights have been applied to languages other than English and how the approach to studying meaning at the lexical level has been applied to capturing the meaning of grammatical constructions. The idea behind Frame Semantics as implemented in FrameNet is that …

> [a] word's meaning can be understood only with reference to a structured background of experience, beliefs, or practices, constituting a kind of conceptual prerequisite for understanding the meaning. Speakers can be said to know the meaning of the word only by first understanding the background frames that motivate the concept that the word encodes
> (Fillmore & Atkins 1992: 76–77)

In Frame Semantics, a lexical unit (LU), a word in one of its senses, is said to evoke the meaning of a semantic frame. For example, the multiple senses of the verb *to run* are separate LUs, each evoking separate semantic frames, including `Self_motion` (e.g. *John ran to the store*), `Leadership` (e.g. *These two were running the show*), `Cause_impact` (e.g. *I run my head into a hornet's nest*), and

Cause_motion (e.g. *Joe ran Bob to the store*).[23] Frames are evoked not just by a single LU but typically multiple if not dozens of LUs of different parts of speech.

Users can query FrameNet for lexical entries displaying information about semantic frames and the LUs that evoke them. The information displayed in FrameNet is the result of a careful corpus-based workflow that includes manual annotation of example sentences and results in lexical entries specifying semantic frames. For example, the Self_motion frame is evoked by over 50 different types of verbal and nominal LUs. Figure 5 shows the prose definition of the Self_motion frame in FN that includes so-called frame Elements (FEs), marked in color, which can be thought of as situation-specific semantic roles (see Fillmore & Baker 2010, Ruppenhofer et al. 2016, Boas 2013).

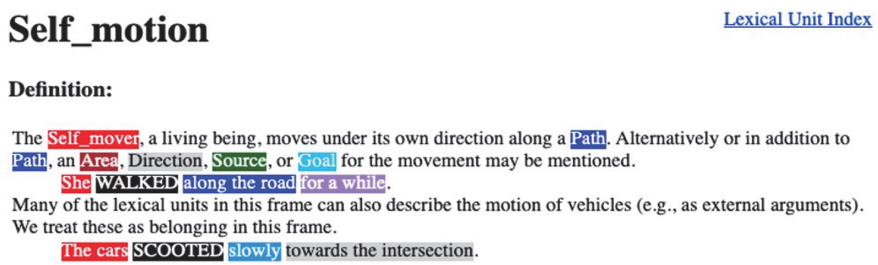

Fig. 5: FrameNet definition of the Self_motion frame[24]

The definition in Figure 5 also includes example sentences, such as *She walked along the road for a while*, where walked is considered the LU that evokes the Self_motion frame and she is the FE Self_mover, along the road is the FE Path, and for a while is the FE Duration. Each frame definition is followed by specific definitions for each of the FEs. For example, the FE Self_mover is defined as "the living being which moves under its own power," the FE Source is defined as "any expression which implies a definite starting-point of motion," the FE Path is defined as "any description of a trajectory of motion which is neither a Source nor a Goal," and the FE Goal is defined as "any expression which tells where the Self_mover ends up as a result of the motion."

The entry of each LU evoking a semantic frame specifies the name of the frame it evokes, provides an LU-specific definition, and lists the various ways in which the

23 Names of frames are in Courier New font.

24 See https://framenet.icsi.berkeley.edu/fnReports/data/frameIndex.xml?frame=Self_motion.

FEs are realized syntactically in terms of their valence properties. This detailed lexical information allows researchers to investigate how the semantics of a given semantic frame are realized differently at the syntactic level. Each LU entry also contains the manually annotated example sentences on which the lexical entry is based (for details, see Fillmore & Baker 2010, Ruppenhofer et al. 2013, Boas 2017).[25] The semantic frames derived on the basis of English have also been successfully applied to other languages, including French, German, Japanese, Spanish, and Swedish (see Boas 2017/2020 for an overview).

While FrameNet was originally conceptualized as a lexicographic project, it has begun analyzing and documenting constructions using the same analytical apparatus as for LUs. The resulting database, a so-called constructicon, is a database consisting of entries for English grammatical constructions based on annotated example sentences showing which parts of them are licensed by which specific constructions (Fillmore 2008). The end result is similar to that of lexical FN-style entries in that each construction entry describes the construction and its components, lists the construction elements (CEs, the syntactic elements that make up a construct), explains the semantic contribution of the construction (often in frame-semantic terms), and links construction descriptions with annotated example sentences that exhibit its type (see Fillmore et al. 2012). The constructicon aims to cover constructions that vary in size and complexity, including non-lexical constructions such as highly schematic constructions and meaningful argument structure constructions as well as (partially) idiomatic constructions, complex words, and morphemes, ultimately resulting in a complete inventory of constructions in a language (see the contributions in Lyngfelt et al. 2018 as well as Boas 2019 and Boas et al. 2019 for some methodological considerations). Insights from the English constructicon have also been applied to the creation of constructicons for other languages such as German, Japanese, and Swedish.

For example, the German Constructicon project at the University of Düsseldorf (Boas & Ziem 2018b, Ziem et al. 2019) is in the process of creating a German constructicon with construction entries for a wide range of different German constructions, including the *geschweige denn* ('let alone') construction. The *geschweige denn* construction pairs the specific form [X *geschweige denn* Y], where X and Y are two propositions, with a particular semantico-pragmatic meaning that correlates the two propositions that each mark a specific point on a pragmatically

25 The Berkeley FrameNet project currently consists of over 1200 frames, entries for more than 13,000 LUs, and more than 200,000 manually annotated example sentences. Frames are organized in a frame hierarchy that display different types of relations between frames (such as inheritance and perspective on).

defined scale as in *Die meisten von ihnen haben zuvor noch nie einen Computer gesehen, geschweige denn bedient* ('Most of them have never before seen a computer, let alone used one').

Fig. 6: First part of the construction entry of the *geschweige denn* construction in the German Constructicon[26]

As Figure 6 shows, the construction entry of the *geschweige denn* construction provided by the German Constructicon project consists of the form of the construction (X_geschweige_denn) followed by a semantico-pragmatic definition, together with a list of construction elements and their definitions (e.g. Negator, Erstes_Konjunkt, Zweites_Konjunkt), the definition of the construction evoking *element geschweige* denn, and annotated corpus example sentences illustrating the use of the construction in context. The *geschweige denn* construction discussed here

26 https://gsw.phil.hhu.de/constructicon/construction?id=10 (last access September 30, 2025)

is just one example of hundreds if not thousands of construction entries that will eventually make up a constructicon of German.[27]

The main point relevant for our discussion of how to compare linguistic phenomena such as case syncretism in different extraterritorial contact varieties of German is that on the constructional view, all of language consists of constructions, pairings of form with meaning. As shown in Table 5 above, licensing a sentence or an utterance can involve multiple types of constructions that differ in their level of abstraction and complexity. In the following subsection, I discuss a few examples illustrating how a constructions-and-frame analysis can facilitate a comparison of linguistic phenomena in different extraterritorial contact varieties of German.[28]

3.3 Applying constructional and frame-semantic insights

We begin with a relatively simple comparison of data from different extraterritorial contact varieties of German by considering lexical items, more specifically variation in how speakers identify the sixth day of the week. Compare the following examples from Namibia German (8), Australian German (9), and Texas German (10 and 11).[29]

(8) wir gehn am *samstag*
we go on Saturday
'We're going on Saturday.'
(NAM171W2, 0057)

27 The German constructicon, like its counterparts for other languages, is still a work in progress. At this point, it is not clear how many constructions the German constructicon team will identify and document. Even though it is an open empirical question, one can probably approximate the number of construction entries in a future German constructicon by looking at large reference grammars of German, such as Eisenberg (1989) and Zifonun et al. (1997), though the actual number is most likely much higher. For methodological proposals regarding procedures for discovering constructions in a corpus by conducting full-text annotation, see Boas (2019).

28 For a specific approach to dealing with constructions in multilingual contexts, see Höder (2014/2018) and Boas & Höder (2018/2021) on Diasystematic Construction Grammar.

29 The Namibia German, Australia German and Russian German data come from the DGD at the IDS Mannheim (https://dgd.ids-mannheim.de/dgd/pragdb.dgd_extern.welcome), the Texas German data from the TGDA (https://tgdp.org/dialect-archive/).

(9) Ja, ich glaub *Sonnabend* sagte er.
yes I believe Saturday said he
'Yes, I believe he said Saturday.'
(AD-E_00018m 0101)

(10) Jeden *Sonnabend* hat jemand anders ein Kalb geschlachtet
every Saturday has someone else a calf slaughtered
'Every Saturday, someone else slaughtered a calf.'
(TGDA, 45-523-1-7-a)

(11) *Samstag* ist oft wenn was zu arbeit war in Feld
Saturday is often when something to work was in field
'Saturday was when there was usually work to do in the field.'
(TGDA, 1-28-1-19-a)

Speakers from Namibia, Australia, and Texas use the different words *Samstag* and *Sonnabend* to denote the sixth day of the week. The use of different forms to denote the same meaning can be captured in frame-semantic terms by the `Calendric_unit` frame. Words in this frame name the different parts of the calendric cycle, both man-made and natural. The FE Unit (e.g. *Saturday*) specifies some time period as a part of a specific larger temporal FE Whole (Saturday *of next week*), or may be resolved on an exact time span by a FE Relative_time (*next* Saturday).[30] A comparative analysis of the data shows that the underlined words are different lexical constructions that pair specific different forms with the same frame-semantic meaning. This one-to-many relationship ((lexical) variation) between form and meaning is important because it also plays a crucial role in our discussion of case syncretism in the following examples (SG = Standard German).

(12) willst du mit *mein* eltern redn
want you with my-Ø parents talk
Willst du mit meinem Eltern reden? SG
'Do you want to talk to my parents?'
(DNAM_E_00534, 1299) [31]

30 For the complete definition of the `Calendric_unit` frame in FrameNet, see https://framenet2.icsi.berkeley.edu/fnReports/data/frameIndex.xml?frame=Calendric_unit.

31 An anonymous reviewer points out that this example might not be a case of case syncretism, but rather of (total) phonetic assimilation. Without further analysis of additional data produced by

(13) ich war da bei Hamilton gewesen mit *ein* Onkel
I was there by Hamilton been with a-NOM uncle
ich war da bei Hamilton gewesen mit einem Onkel SG
'I was there by Hamilton with an uncle.'
(AD-E_00140, 011)

(14) denn sind wir schon jefahren mit *die* Bahn
then were we already travelledwith the-NOM/ACC train
dann sind wir schon gefahrenmit der Bahn SG
'Then we traveled by train.'
(RUDI_E_00017, 0003)

(15) Ich bin nicht mit *die* Kirche ausgefallen.
I was not with the-NOM/ACC church out-fall
Ich bin nicht mit der Kirche ausgefallen. SG
'I did not fall out with the church'
(TGDA, 10-93-1-7-a)

Each of the underlined determiners of the noun phrases following *mit* in (12)–(15) should be marked with dative case (from the perspective of Standard German) to indicate indirect object marking. Instead, we find either no case marker in Namibian German as in (12), a nominative case marking in Australian German as in (13), or a case marker whose form is that of both accusative and nominative case in Russian German in (14) and in Texas German in (15).[32] To capture the differences in case assignment following *mit* in Australian German, Namibian German, Russian German, and Texas German, I follow Barðdal (2008), who analyzes case markers in terms of constructions (pairings of form with meaning) that attach to determiners, adjectives, and nouns given specific case-marking contexts such as dative-governing prepositions.

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the same speaker, it is very difficult to clarify this point. In the end, it might not matter since assimilation may be a phonetic/phonological process that can ultimately lead to morpho-syntactic change.

32 Note that I do not claim that *mit* and other prepositions that govern dative case in Standard German automatically have or used to have the same case marking properties in the extraterritorial contact varieties of German under discussion here. Instead, I am using Standard German as a *tertium comparationes* to make comparisons across different contact varieties easier. It is likely that these prepositions of (some of) the donor dialect(s) forming the basis for the contact varieties under discussion had case marking properties that were very different than those of today's dative-governing prepositions of Standard German.

On this view, *mit* is a frame-evoking LU that evokes the Accompaniment frame, in which a FE Co-participant fills the same role as the FE Participant in an event or relation.[33] The FE Co-participant is the accompanying entity (person or object) while the FE Participant is the accompanied entity (person or object) as in [<Participant>Chuck] played the piano with[Tgt] [<Co-participant>Lily]. While in Standard German and other varieties of German, the FE Co-participant following *mit* is marked with dative case to identify the semantic classification as the FE Co-participant (grammatical function: indirect object), this overt dative case marking is not present in (12)–(15). The interesting observation from a constructional perspective is that even though the dative case marking is not present on the determiners in (12)–(15), the noun phrases following *mit* can still be identified as Co-participant FEs because of their structural contexts in which they occur. In other words, the identification of the FE Co-participant in the examples above hinges primarily on the structural context in which the NP representing the FE Co-participant appears, see Figure 7.

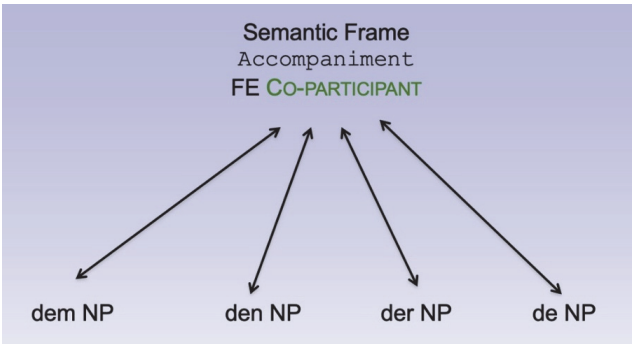

Fig. 7: Variable case marking on the form side of the construction for identifying the same frame element following *mit*

Figure 8 shows the two sides of the case-marking construction. At the top, we find the meaning of the FE Co-participant that is part of the semantic frame Accompaniment. This is the meaning side of the construction. At the bottom in Figure 8 we find the form side of the case marking construction, except for the rather unusual fact that there is not only one form of the construction (e.g. the (from

33 See https://framenet2.icsi.berkeley.edu/fnReports/data/frameIndex.xml?frame=Accompaniment. For an analysis of case syncretism in the context of the Assistance frame, see Boas (2021a).

the perspective of Standard German) expected dative marking *dem NP*), but rather four different options that may all be used to indicate the same meaning.[34]

Using this constructional representation of the relationship of form and meaning allows us to systematically identify and compare different instances of case marking representing the same meaning across different contact varieties. This approach has the advantage of taking into consideration variation on the form side of case-marking constructions such as the dative following *mit*. In some instances, the form side of the case-marking construction appears with the fully fledged-out morphological dative marking on the determiner. In other instances, the form side of the case-marking construction in Figure 8 appears in different forms that resemble the nominative and/or accusative case marker or no overt case marker at all (e.g. *d* NP). The point is that while the form side of the construction may vary, the meaning side remains the same.[35]

This is only a brief overview of variation in case marking following only one preposition in a few German contact varieties. A more fully articulated account of case syncretism using frame-semantic and constructional insights requires further steps, which can only be outlined here due to space constraints. That is, further research needs to address whether case syncretism in noun phrases marked by *mit* shows a uniform behavior across all senses of *mit* (not just those evoking the frame `Accompaniment`). Taking Texas German as an example, the TGDA currently contains 7476 example sentences with *mit*. These need to be analyzed and categorized based on the different senses of *mit*. Besides the general `Accompaniment` sense of *mit*, it has also related senses covering an instrumental meaning (e.g. *Die war gekoch, ahm mit der Nadel immer gestochen* 1-167-1-35-a), a reciprocal meaning (e.g. *Dann hammer immer auch mit die Eltern Deutsch gesprochen* 1-35-1-20-a), and others.

34 One reviewer suggests that at a lower level of abstraction the principle of no synonymy 'one form, one meaning' may still apply and wonders whether the different forms (*dem NP*, *den NP*, *der NP*, *de NP*) carry socio-linguistic meaning. Based on the distribution of differently case-marked NPs following *mit* in the Texas German Dialect Archive, I could not arrive at a clear distinction that would support the principle of no synonymy, very much in line with recent research by Laporte et al. (2021). In Boas (2009), I discuss the great degree of inter-speaker and intra-speaker variation found among the speakers of Texas German. Unfortunately, I have so far been unable to detect any patterns indicative of specific socio-linguistic factors determining the choice of one variant over the others.

35 This account is only a model/representation of how this variation in case marking can be modeled using semantic frames and constructions. It does not provide an explanation for why or how this is happening, i.e. why we find an increase in case syncretism in extraterritorial contact varieties of German. One factor contributing to this development may be the phonological contexts in which case syncretism takes place. This needs to be addressed by further research.

A first analysis of the Texas German *mit* data involves determining which senses occur with what frequency, then it is possible to determine the different case making properties in each sense category of the *mit* data. Note, that so far, we have "only" discussed a few cases of noun phrases consisting of determiners and nouns with one particular sense of *mit*. However, there are several other contexts in which dative case marking is expected on noun phrases from the perspective of Standard German. Boas & Levina (2023) discuss multiple additional types of NPs following the `Accompaniment` sense of *mit* in Texas German as in Figure 8.

Category	Example
DAT NP: DET + NOUN	mit dem Hund / with the dog
DAT NP: Det + *NOUN	mit dem Soldat-∅ / with the solider
DAT NP: NOM +case ending	mit Helmen / with helmets
DAT NP: *DET + NOUN + case ending	mit der Namen / with the names
NOM/ AKK NP: DET + NOUN	mit die Pferde-∅ / with the horses
NOM/AKK NP: NOUN	mit Pferde-∅ / with horses
NOM NP	mit mein-∅ Vater / with my father
AKK NP	mit den Wagen / with the wagons
GEN NP (?)	mit ihres Vieh-∅ / with their livestock
Not clear	mit Holz / with wood

Fig. 8: Case marking on Texas German NPs without adjectives following *mit* (Boas & Levina 2023).[36]

A detailed analysis of the types of data as in Figure 8 will make it possible to determine which specific case-marking strategies on the determiner and/or noun occur with which sense(s) of *mit*.[37] Next, a similar analysis should be conducted with

36 Note that sometimes it is not clear how to categorize case marking in noun phrases. For example, in Table 8 the phrase *mit ihres Vieh* could be interpreted as being (partially) case marked with a genitive case because of the *-s* on the possessive pronoun (the full genitive marking in varieties such as Standard German also show genitive case marking on the noun as in *ihres Viehs* (but without the preposition *mit*, which marks dative case in Standard German and other varieties).

37 Following the usage-based approach (Backus 2020) to linguistic analysis, this paper seeks to identify in a bottom-up way whether there are any systematically structured patterns of case syncretism in the data. To achieve this goal, I suggest to take a splitting approach to word senses that regards each sense of a word as its own construction, following Fillmore & Atkins (1992). To achieve

a different category of noun phrases, namely those that also contain adjectives to see how case marking is distributed on the determiners, adjectives, and nouns. It is important to remember that the various steps outlined so far only cover case marking of NPs following on particular sense, namely the `Accompaniment` sense of *mit* in Texas German, not any other contexts in which one would expect dative case marking from the perspective of Standard German.[38] For a better understanding of case syncretism across extraterritorial contact varieties of German, a similar analysis needs to be conducted on the other varieties in order to allow for a systematic comparison. This will then yield to a better understanding of case syncretism following *mit* in extraterritorial contact varieties of German.

Next, a similar comparison should be conducted with other dative governing prepositions in Texas German such as *bei* ('at'), *aus* ('out (of)'), *seit* ('since'), and *zu* ('to'). For each of these prepositions it will be necessary to first determine on the basis of corpus data its various senses (most likely with the help of a frame-semantic analysis) and then the various types of noun phrases (NPs consisting of (1) bare nouns (2) determiners and nouns, and (3) determiners, nouns, and adjectives) that occur with each of these senses. For each of the different types of noun phrases occurring with the various senses it will then be necessary to determine the case markers on the various constituents of the noun phrases, similar to the procedure outlined above for the `Accompaniment` sense of TX German *mit*.

Once we have a full-fledged analysis of case markers found in the various types of NPs of all of the senses of all of the dative-governing prepositions (from the perspective of Standard German) of Texas German, we will be in a position to determine how uniform dative case-marking is on NPs following dative governing prepositions in Texas German. To arrive at a more complete picture of case marking strategies following dative governing prepositions, the steps outlined in this paragraph need to be repeated for the other extraterritorial contact varieties of German under discussion.[39] Once this analysis is complete, we will arrive at a more accurate overview of how case marking operates following dative governing prepositions in the various German contact varieties. To determine the exact nature of case syncretism involving dative case in Texas German, it will be

this goal, one would want to take a careful look at the individual senses and functions of mit, including senses involving an instrument, parts of the body, as well as several different types of adjuncts (see Durrell 2021).

38 Of course, NPs consisting of pronouns following *mit* also need to be analyzed and compared.

39 Ideally, we would want to include at least two additional types of information in such an analysis as well: (1) frequency information, and (2) sociolinguistic factors. While this is a desired goal, it may in practice be unattainable because of the different methodologies underlying the various research projects that document and analyze German contact varieties.

necessary to investigate at least two more additional contexts in which dative case marking occurs in Standard German.

The first context involves so-called two-way prepositions such as *auf* ('on') or *unter* ('under'), which in Standard German mark accusative case in contexts in which there is movement involved and dative case in context in which something remains in the same position (see the discussion of the data in Tables 1 and 2 in Section 2 above). For these prepositions, it will also be necessary to determine the contexts in which they mark dative case in Texas German and then compare these case-marking properties with those of other extraterritorial German contact varieties.

The second category of contexts that need to be investigated involves contexts in which in Standard German we find structural case marking of dative case. One example is the ditransitive construction that marks the indirect object (the recipient NP) of an activity with dative case (and the direct object with accusative case). In Texas German, we find variable case assignments in the ditransitive construction as the following examples illustrate.

(16) a. In unser Familie war es der Vater was *Dir* Schläg gegeben hat.
in out family was it the father who you beating gave has
'In our family, it was the father who beat you.'
(TGDA, 1-1-1-6-a)

b. Aber die haben *mich* eine Trombone gegeben
but they have me a trombone gave
und das war so viel Spass
and that was so much fun
'They gave me a trombone and that was so much fun.'
(TGDA, 1-32-1-14-a)

c. So die Karte wo ich *dich* gegeben hab
so the card that I you gave have
'So the card that I gave you.'
(TGDA, 1-403-1-6-a)

d. Un hat se *mich* finf Dollar bill gegeben
and has she me five dollar bill gave
'And she gave me a five-dollar bill'
(TGDA, 10-93-1-2-a)

In (16a) we find dative case marking of the recipient NP *Dir* ('you'), similar to Standard German. In contrast, in (16b) we find accusative case marking on the recipient NP *mich* ('me'), which would be marked with dative in Standard German and some other German dialects. We find the same accusative case marking of

recipient NPs in the other examples of the Texas German ditransitive construction in (16c)–(16d). A cursory glance at the transcriptions in the Texas German Dialect Archive shows a preponderance of accusative case markings of recipient NPs, while dative marking occurs only rarely in these contexts. The distribution of Texas German case marking in structural contexts in which Standard German marks dative case as in the ditransitive construction clearly warrants further investigation. Because of space limitations, we will not be able to pursue this matter further in this paper.

A future study should compare the distribution of dative case marking in structural contexts such as in the ditransitive construction and compare these with the lexically governed case marking contexts following prepositions in Texas German (as discussed above). Such an investigation will yield a much more complete and detailed picture of case syncretism (accusative/dative) in Texas German. In addition, parallel future studies should investigate how case marking operates in the same contexts in other extraterritorial contact varieties of German. This will allow a more systematic comparison of case syncretism across different contact varieties of German.

4 Conclusions and outlook

In this paper, I discussed a systematic approach to analyzing and comparing the same phenomena across different extraterritorial contact varieties of German. In Section 2, I discussed a number of prior analyses of case syncretism in contact varieties of German, arguing that while they provide insights into some aspects of dative/accusative case syncretism, they do not offer a more complete picture of all of the different contexts in which case syncretism occurs. In addition, I argued that the different ways of analyzing data and the availability of different types of data make it difficult to compare phenomena such as case syncretism across different contact varieties of German.

To address these issues, I proposed in Section 3 a usage-based approach (see Backus 2020) to analyzing and comparing linguistic phenomena in different contact varieties of German. Following ideas first discussed in Boas (2016) and Boas (2021a), I suggested in Section 3.1 to use comparable types of spoken data from contact varieties of German. Ideally, the spoken data should be transcribed and archived online together with the recordings so that they can be searched (as is the case in the *Datenbank Gesprochenes Deutsch* or the *Texas German Dialect Archive*).

In Section 3.2, I proposed to use Construction Grammar and Frame Semantics for analyzing and comparing different linguistic phenomena across a number of

contact varieties of German. A key concept is that of a construction, a pairing of form with meaning/function. First, I showed how Frame Semantics can be employed to systematically model lexical variation in Australian German, Namibian German, Russian German, and Texas German. More specifically, I argued that using the `Calendric_unit` frame to capture lexical variation of words expressing the 6th day of the week allows us to link up different types of form (e.g. *Samstag* and *Sonnabend* ('Saturday')) with the same meaning, which is captured by the `Calendric_unit` frame. Second, I showed how the notion of construction can also be employed to capture case syncretism in German contact varieties. On this view, case markers can be seen as constructions, i.e. pairings of form with meaning, which attach to determiners, adjectives, and nouns. The data from German contact varieties suggest a slightly different architecture of what a construction is in that it is possible to have one particular meaning, in this case the frame element Co-participant of the `Accompaniment` frame, that is paired with multiple different forms in specific structural contexts following the preposition *mit*.[40]

The data discussed in Section 3.2 show that case syncretism in German contact varieties heavily relies on the structural position of the NP following *mit*. In other words, the form side of the construction, whether it is represented as *-em*, *-en*, *-er*, *-e,* or no marker at all, does not appear to matter since it is still possible to identify the NP following *mit* as the Co-participant frame element of the `Accompaniment` frame. At the end of Section 3.2, I argued that this constructional view of case syncretism in Texas German following prepositions that mark dative in Standard German should in the future also be extended to two-way prepositions marking accusative and dative. A similar approach should be followed for structural case marking contexts in which in Standard German dative case occurs with the Recipient frame element (the indirect object) of the ditransitive construction. Finally, I suggested that this approach should also be applied to other contact varieties of German, thereby leading to a more accurate and detailed picture of the full extent of dative/accusative case syncretism in German contact varieties.

The analysis I proposed in this paper is only the beginning of a more elaborate and systematic constructions-and-frames approach to comparing a broad range of phenomena in different German contact varieties. Future research needs to address the following open questions that could not be covered in this paper because of space constraints:

40 This finding runs counter to the principle of no synonymy as formulated by Goldberg (1995). As such, these results contribute to other recent findings calling into question the principle of no synonymy in Construction Grammar, see Uhrig (2015) and Laporte et al. (2021).

(1) What is the role and influence of contextual parameters that might contribute to establishing varieties, such as socio-demographic factors? Prior research by Busse (2007) and Finkbeiner et al. (2012) discuss various types of contextual parameters, which could be taken as the basis for a possible typology of context dimensions that in turn could allow for a possible distinction between linguistic vs. non-linguistic constraints on FE/CE instantiations and possibly also the evocation of frames and constructions. For example, it might turn out that a particular type of case syncretism is specific to a particular sub-community of Texas German speakers characterized by one (or more) sociolinguistic variables such as age, gender, or religious affiliation. The TGDP collects for each Texas German speaker sociolinguistically relevant information using an 11-page long biographical questionnaire (see Boas 2021b). If any sociolinguistic variable were to be found to be relevant for establishing a specific sub-community of Texas German speakers that exhibited a unique pattern of case syncretism, then the sociolinguistically relevant information could be modeled as a part of the meaning side of case-marking constructions.

(2) How do frames and constructions interact? This is a more general question that goes well beyond the scope of just contact linguistics alone. While research in Construction Grammar during the 1990s and 2000s primarily focused on a rather small set of (semi-)idiomatic constructions and argument structure constructions (see, e.g., Goldberg 1995, Kay & Fillmore 1999, Fillmore 2002, Kay 2005, Boas 2010, Butler & Gonzalvez-Garcia 2014, Hoffmann & Trousdale 2013), more recent constructional research has aimed to systematically investigate how verbs and constructions interact and how multiple constructions interact together with verbs (see, e.g., Sag et al. 2012, Lyngfelt 2018, Marty 2020, Ziem 2022, Boas (in press)). In the context of the case-marking constructions compared in this paper, one of the central questions to be addressed is whether there are abstract case-marking constructions or whether case-marking constructions are item-based, i.e., whether their specific distributions are governed by specific prepositions, verbs, or more abstract constructions.

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