Alexandra Rehn & Ellen Brandner

2022

Bad Data can be Good Data – the Significance of Different Methods for Syntactic Theorizing

in

Robin Hörnig, Sophie von Wietersheim, Andreas Konietzko & Sam Featherston (eds.),

Proceedings of Linguistic Evidence 2020: Linguistic Theory Enriched by Experimental Data

pp. 257–279

Tübingen: University of Tübingen

https://publikationen.uni-tuebingen.de/xmlui/handle/10900/119301

In R. Hörnig, S. von Wietersheim, A. Konietzko & S. Featherston (eds.) (2022), *Proceedings of Linguistic Evidence 2020: Linguistic Theory Enriched by Experimental Data*. Tübingen: University of Tübingen. https://publikationen.uni-tuebingen.de/xmlui/handle/10900/119301

Bad Data can be Good Data – the Significance of Different Methods for Syntactic Theorizing

Alexandra Rehn & Ellen Brandner
University of Konstanz, University of Stuttgart
alexandra.rehn@uni-konstanz.de, eleonore.brandner@ling.uni-stuttgart.de

1 Introduction

When different methods for gaining linguistic data yield differing results, this is often seen as problematic because one of the methods is then 'obviously not valid'. In this paper we compare and discuss different modes of elicitation of micro-variational, i.e. dialectal data, which lead to the outcome just described.

As will be shown, this situation does not necessarily force us to dismiss the results of one of the methods – instead the deviances give us important hints on the character of the syntactic variation: in one case, there is "conventionalization" in the sense that the differences are merely different surface outcomes of otherwise identical syntactic derivations. In the other case the data reveal, which phenomena must be placed in the core syntax, i.e. we can identify true optionality vs. parametric variation in the classical sense. As such, the interpretation of these differing results is very close to what has been described in Featherston (2005) as the "Decathlon Model". In this model, frequency and judgment data are compared. As these often give rise to different results, the proposal in Featherston (2005) is that different components of the language faculty are relevant: (i) the grammar which may produce several – nearly equally good – candidates for the 'formulation of a message', as he calls it, and (ii) a competitive output selection. Frequency data inform us about the preferences in the output selection. They are in a sense black and white: a construction either occurs or does not occur since via producing/uttering, the language user is forced to choose exactly one version – although the grammar may deliver more candidates. The relative ranking via acceptability judgments on the other hand informs us about the ranking of the different versions that the grammar component creates. Featherston (2005) bases his grammar model on constraint-based grammars (with an optimality theory component) whereas we will rely on the more classical generative grammar with its basic assumption that it is the grammar itself that singles out one derivation as the only possible one. Much in line with Borer's (2005) exoskeletal syntax, we will posit the variation in the inventory of functional elements, realizing different positions in the otherwise universally valid sequence of functional projections. However, the situation may arise that two lexical realizations are indeed equally suited for covering the respective grammatical function. For example in the formation of relative clauses, a d-type relative pronoun or a non-inflecting particle *wo* (or even a combination of them) are used in the Alemannic dialects to varying degrees. The question to be solved then is whether the respective derivations differ in such a fundamental way that we can talk about different parameter settings or whether all three of them are based on one identical derivation and the different outcomes are more a matter of output selection.

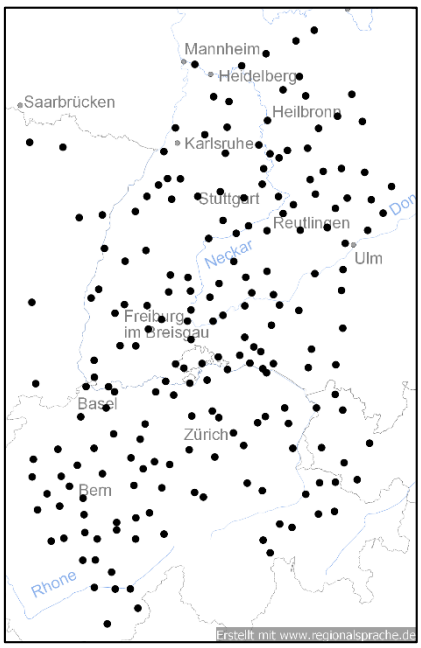
In order to approach this question, we will take another dimension of variation into account, namely the areal patterns of the distribution of the various possibilities. Combined with the different modes of gaining the data (in our case mostly translations vs. judgments on a 5-point scale), it will be shown that with some phenomena, the areal patterns are fairly robust across the different modes – whereas in others, versions that seem at first sight not to be present at all

in one region in data from translation tasks, suddenly are acceptable across the whole Alemannic area when it comes to judgment tasks. We will argue that these differing patterns can help us decide whether we are dealing with different grammars (parametric variation) or with conventionalization in the sense that all versions are derived equally and that one PF-realization simply happens to be more common in one region.

We will proceed as follows: Section 2 gives an overview of the procedures used in the SynAlm project to gather the data and it will be briefly shown that the differences in the outcome are not due to interference effects – which might be expected in written translations for example. Section 3 discusses three case studies: (i) variation in relative clause introducers, as briefly mentioned above, (ii) to what extent indefinite articles occur with mass nouns (a phenomenon otherwise known from Bavarian) and (iii) variation in adjectival inflection when it comes to the acceptability of non-inflection. After discussing these different dimensions of variation in some detail, we will conclude that the variation found with relative clauses and adjectival inflection can indeed be attributed to a surface effect, whereas in the case of the indefinite determiner, it will be shown the functional inventory of the variants differs such that we can identify two different grammars in the sense that the respective functional items realize different functional categories. Section 4 concludes and offers some further considerations on the architecture of the grammar, based on this kind of data.

2 Background on Data Collection

All the data we discuss in the following stem from written questionnaires that aimed at gaining a more detailed picture of the morpho-syntactic properties of the Alemannic dialect(s), which are traditionally divided into Highest-, High-, Middle-, Low-Alemannic and Swabian. The Alemannic area covers the German speaking part of Switzerland, Alsace in France, large parts of southern Germany, and Vorarlberg in Austria. One of the goals of the project was to determine whether political borders running through the Alemannic area may also constitute a border for morpho-syntactic phenomena, see Brandner (2020) for several examples where the political border between Switzerland and Germany is crucial. This holds for the phenomena to be discussed in this paper as well. We will refer to the variants as D-ALM (Germany) and CH-ALM (Switzerland). Map 1 shows the regions covered as well as the measuring points in SynAlm.



Map 1. Individual places in the Alemannic area to which questionnaires were sent

2.1 The SynAlm (Syntax of Alemannic) Project

SynAlm ran for five years. Seven questionnaires, covering different topics (e.g. relative clauses, possessive constructions, determiners, adjectival inflection, prepositional phrases, long wh-dependencies), were sent out successively to dialect speakers. The participants were recruited by sending out about ten copies to the town halls of the chosen places with the request to spread them. This worked astonishingly well and in the first round about 1000 participants from across the (almost entire) Alemannic region sent back the questionnaire. With this initial questionnaire we established a large network of participants and all following questionnaires were sent to these speakers directly with some additional copies for further interested dialect speakers. Due to this setting, we did not select our speakers based on the relevant socio-linguistic factors (age, education, etc.) – although this information was gathered for further research. We could not control the numbers of speakers per place either. Therefore, in some places we had several speakers – in others only one. This affects the representation of the results in the maps below as the answers per place are represented in a pie chart: thus 100% may reflect the judgment of only one speaker. Nevertheless, the sheer number of informants as well as the large area covered allows us to draw conclusions from this data set. Furthermore, as expected, the number of informants decreased over time, nevertheless, there were still 550 speakers who sent in the last questionnaire. Fortunately, the regions were still covered to a sufficient extent.

2.2 Task Types in SynAlm[1]

The following task types were used for the phenomena that will be discussed in this paper:

(i) *translation tasks*: informants translated a sentence from Standard German into their respective dialect.

(ii) *judgment tasks*: the sentences were presented to the informants in their dialect (where we controlled for e.g. phonology – as far as possible) and they had to rate them on a 5-point scale (with 1 = natural and 5 = not possible). Often, the relevant morpho-syntactic variable(s) were directly contrasted in this kind of task.

(iii) *choice tasks*: several options were offered for one morpho-syntactic variable and the informants had to choose one.

All three task types as they were presented in the questionnaire are illustrated in Figure 1. The first three examples illustrate a translation task, a judgement task, and a choice task for the different types of relative clause introducers (RCI henceforth). The fourth example illustrates a judgement task testing the acceptability of uninflected adjectives.

[1] We only include the task types that are relevant for the discussion in this paper. For phenomena beyond the ones discussed here, additional task types were used.

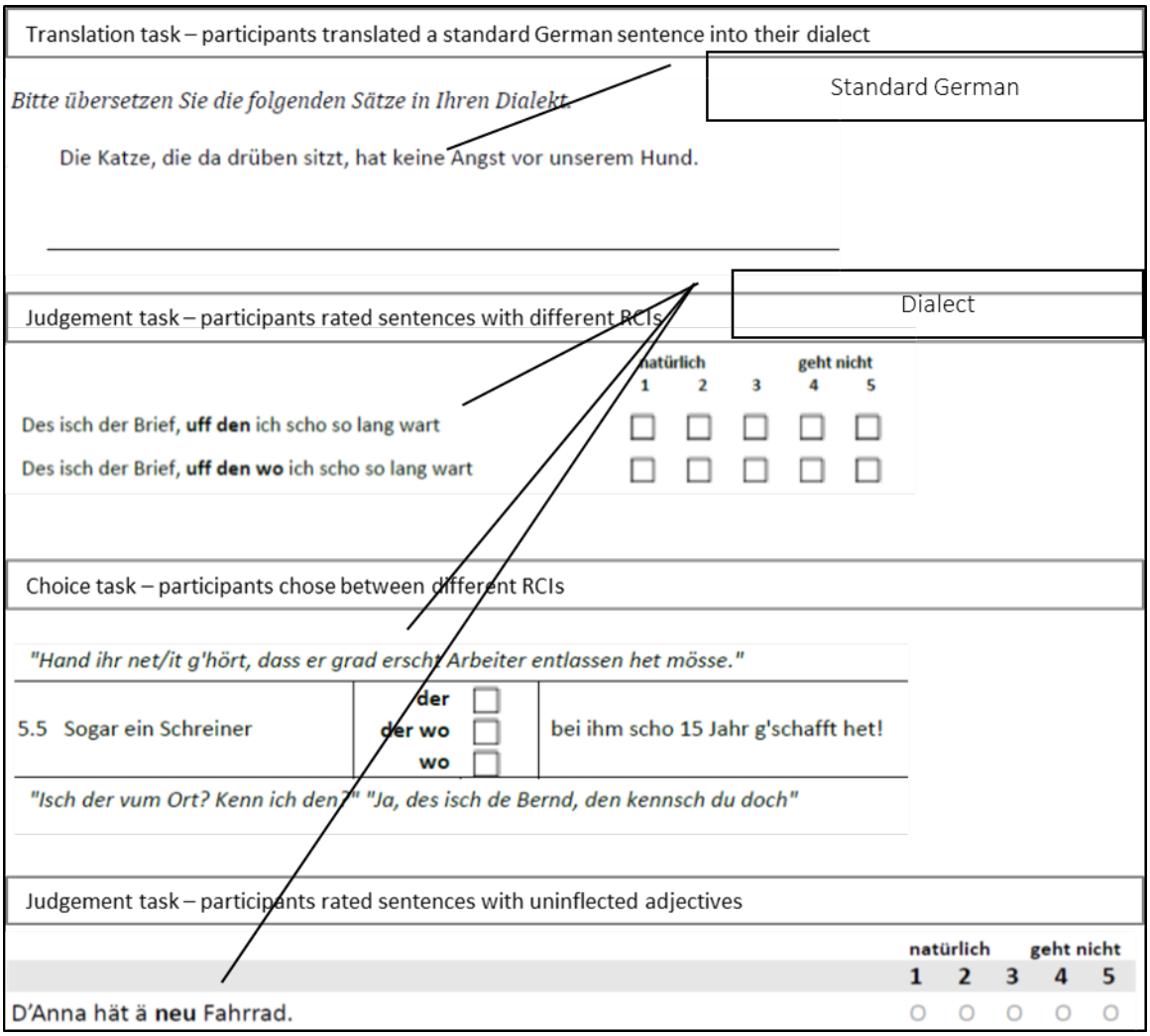


Figure 1. Task types as presented in the questionnaires

With the judgment and choice tasks participants were also given the opportunity to write down their own preferred constructions in case it was not given in the questionnaire. This is illustrated in Figure 2.

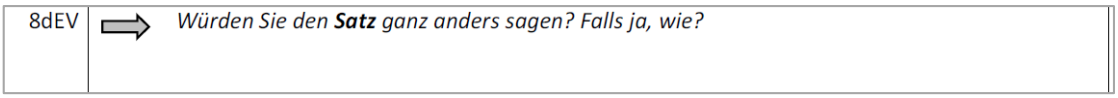


Figure 2. Opportunity for participants to write down their own alternatives

As noted above, the questionnaires were sent out successively over a period of four years. This had several reasons. First of all, the questionnaire would have been too extensive if all phenomena had been presented in only one or two. In addition to this, there was a methodological reason: every questionnaire contained translation tasks. The translations were examined closely and it turned out that in many cases, constructions appeared that were unknown until then. These newly detected constructions were then presented to the informants in a subsequent round in form of a judgment task. With this strategy, we obtained results for many constructions that were tested both in a translation as well as a judgement task.

2.3 Interference Effects

As mentioned above, the results from translation tasks and judgment tasks differ quite drastically in some cases. Since the dialect and the standard language are historically closely related and in addition that every dialect speaker has active knowledge about the standard, it seems plausible that translation tasks show strong(er) interference effects. It might thus be the

case that participants do not actually translate the sentence which is given in Standard German but only change the phonology or lexical items while keeping the Standard German morpho-syntactic construction. In this subsection, we show with some examples that this type of interference effect is not responsible for the different outcomes between translation tasks and judgment tasks in our data.

If interference were the relevant factor for the different outcomes from translation and judgment tasks, we would expect two effects: first, the versions corresponding to Standard German should be more frequent in the translation tasks than in the judgment tasks, for the reason given above. Second, we would expect the rate of Standard German equivalents to be quite constant across different phenomena. The reasoning behind this is that – assuming that there are a certain number of speakers/informants who reproduce the Standard German sentence with merely a different wording – these speakers are expected to behave alike across different constructions. This is of course only relevant in cases where the Alemannic version deviates considerably from Standard German. The three cases that will be discussed in more detail in Section 3 happen to be of this type. Therefore, they will be presented at this point in some detail with the numerical results displayed in Figure 3 to Figure 5. In Section 3 then, the areal patterns will be included in the discussion and we will see that this additional kind of results gives us the relevant clue to interpret the data in an appropriate way.

2.3.1 Relative Clauses

Standard German has essentially[2] only one type of relative clause introducer (RCI): a d-pronoun in Spec-CP (*der, die das*), agreeing in phi-features and case with the corresponding element in the gap. Alemannic (as well as other dialects) has several strategies at hand: i) the non-inflecting particle *wo*; ii) the d-pronoun strategy as in Standard German, and iii) a combination of these two (*der wo*). In addition to these, a resumptive pronoun may occur in combination with the particle strategy under certain conditions (oblique grammatical role, adjuncts). The various possibilities are illustrated in (1)a to (1)d.

(1) Alemannic Relative clause strategies:

a. *die Katze,* ***die*** *da sitzt*	*d-strategy (d-pronoun)*
b. *die Katze,* ***die wo*** *da sitzt*	*dw-strategy (doubling)*
c. *die Katze,* ***wo*** *da sitzt*	*w-strategy (particle)*
the cat that PRT there sits	
'the cat that is sitting (over) there'	
Resumptive (with dative and PPs only):	
d. *der Junge,* ***wo*** *ich* ***ihm*** *das Buch gegeben habe*	*w + resumptive*
the boy PRT I him the book given have	
'the boy to whom I gave the book'	

The different options of introducing a relative clause are a perfect testing ground for finding out to what extent interference might be relevant, as this phenomenon is a well-documented difference between Standard German and Alemannic. If interference were relevant, the expectation would be that the d-pronoun appear much more often in translation tasks than the particle-strategy or the combination of particle and pronoun.

[2] We ignore here the strategy with *welch*-type pronouns ('which'), as these are de facto confined to the written versions of Standard German.

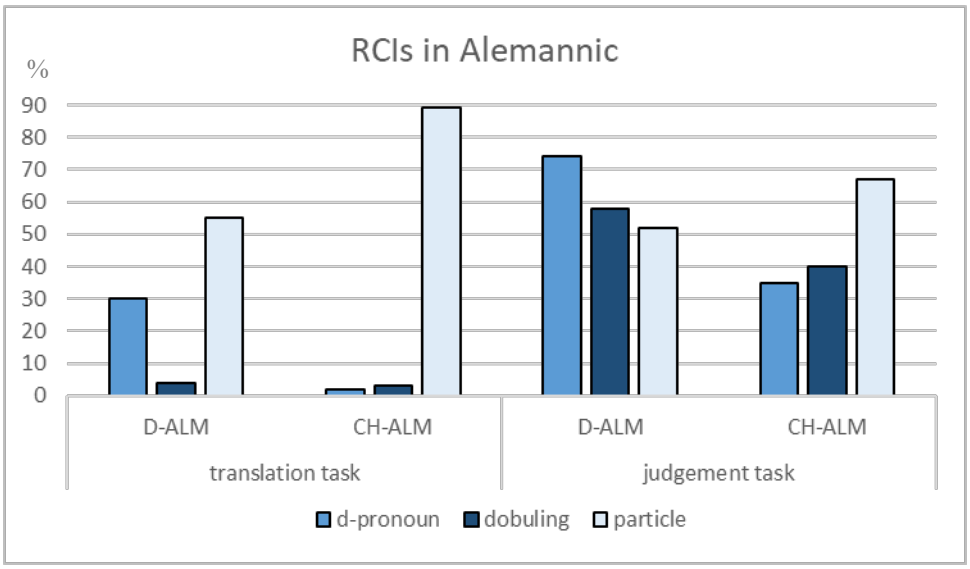


Figure 3. Choice of RCI in translation vs judgement in D-ALM and CH-ALM (percentage, n = 752)

On the left-hand side, the three different strategies are given in percentages[3] according to their occurrence in the translation task. In D-ALM, 30% translate with a d-pronoun, as in the Standard German model, but only 2% use this strategy in CH-ALM. The judgment task on the right-hand side, where all three strategies were offered for rating, yields a rather different picture. The bars represent the ratings with 1 and 2 on the 5-point scale, which we take as 'acceptable'. Since the participants rated each example individually, the judgments sum up to more than 100%, reflecting directly that two or even all three strategies can be equally acceptable for some participants. What is important for the discussion here is the fact that the d-pronoun strategy (as well as the doubling strategy) is obviously acceptable to a much higher degree than one would expect from the results of the translation task. Especially, if the participants were influenced by the Standard German example due to an interference effect, the results should be the other way round, as the Standard German d-strategy is the one presented in the translation task.

2.3.2 Adjectival Inflection

In Standard German attributive adjectives always inflect and the type of inflection (weak or strong) depends on the inflection of the preceding article. When the article bears strong inflection, the adjective shows the weak ending. When the article is uninflected or absent, the adjective shows strong inflection. This distribution is illustrated in (2). Alemannic shows the same distribution of adjectival inflection as given for Standard German, but in addition, inflection can be dropped on attributive adjectives when an article precedes it. This option is independent of the inflectional properties of the article, i.e. inflection can be dropped after inflected as well as uninflected articles (cf. Rehn, 2017). When no article is realized, inflection is also obligatory in Alemannic. An illustration of the inflectional pattern found in Alemannic is given in (3).

(2) Standard German adjectival inflection

*d-**er*** *gut-**e*** *Wein*	*ein gut-**er** Wein*	*gut-**er*** *Wein*
d.STR good.WK wine	a good.STR wine	good.STR wine

(3) Alemannic adjectival inflection

de guet-(i) Wii	*e guet-(er) Wii*	*gued-*(r) Wii*
the good.WK wine	a good.STR wine	good.STR wine

[3] The scale does not reach up to 100% since not all translations given involved a relative clause.

This difference again fulfills the conditions for investigating to what extent interference has an influence on production/rating. As adjectives obligatorily inflect in Standard German, uninflected adjectives should appear rarely in translation tasks, because the sentence that has to be translated always contains an inflected adjective. However, Figure 4 shows that this is not the case, as nearly 80% of CH-ALM speakers produced an uninflected adjective in the translation task. The translation furthermore reveals again a considerable difference between D-ALM and CH-ALM when it comes to deviating from Standard German. If interference from the standard was a considerable factor, the number of translations with (or without) inflection should be roughly the same across the Alemannic regions – contrary to fact. The difference between the Swiss and the German regions declines when considering the results from the judgment task – here again only the 1 and 2 ratings are represented. But it is clear that the phenomenon as such is present across Alemannic.

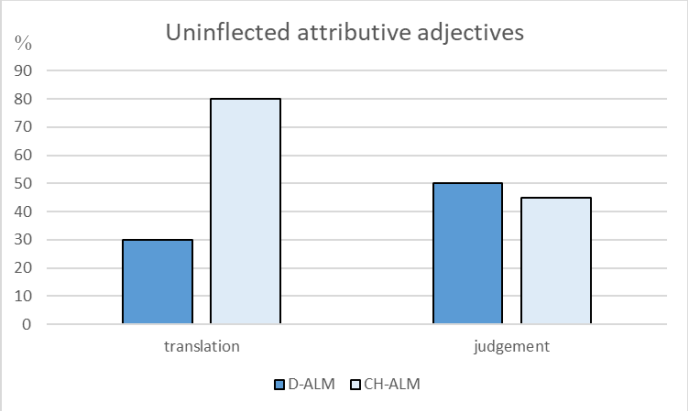


Figure 4. Uninflected attributive adjectives in D-ALM (German regions) and CH-ALM (Swiss regions) translation n = 990; judgement n = 757

2.3.3 Indefinite Article (IA) with Mass Nouns

This phenomenon is widely attested in Bavarian dialects, cf. Zehetner (1985) and it is also known from earlier stages of German, i.e. Middle High German, cf. Presslich (2000), see (4) and (5):

(4) Bavarian:

I brauch no a geld
I need PRT a cash

(5) MHG:

dô was ein snê gevallen (GL 1196,4)
there was a snow fallen

Given that this construction was quite productive in MHG and given that, in addition, Alemannic can be regarded as one of the successors of MHG, the expectation is that it occurs in this variant as well, and indeed, there are attestations of it in descriptive grammars. However, in translation tasks, the indefinite article was produced only by a small group of informants in D-ALM. Its acceptability was much higher in D-ALM, up to 70%, but remained very low in CH-ALM.

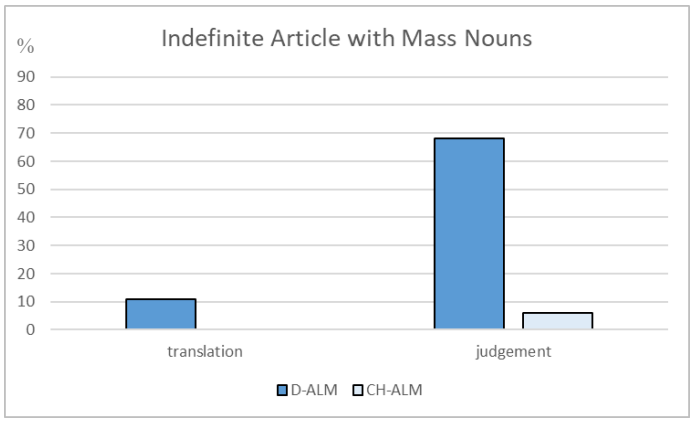


Figure 5. Indefinite article with mass nouns in D-ALM (German regions) and CH-ALM (Swiss regions) translation n = 757; judgement n = 517

The situation in this case might be interpreted as being due to interference from Standard German in the translation task, since the translation task yielded dramatically fewer results that deviate from the standard than the judgment task. But the very low acceptability of the IA in Swiss German then remains unaccounted for. This picture hints at a rather strong difference between CH-ALM and D-ALM in that Swiss German is now closer to Standard German. Compare this with the results from RCs and adjectival inflection where CH-ALM deviated strongly from Standard German in the case of translations – but not in the judgment tasks.

In sum, this incoherent picture shows that interference cannot be the relevant factor for the explanation of the different outcomes across task types. Thus neither a constant rate (assuming a certain number of speakers that copy the Standard German syntax) nor a translation bias could be detected. Rather the contrary: the results show that when it comes to 'output selection', the informants choose the dialectal version to a much higher extent. Thus, we can safely dismiss the idea that the differing results in the various tasks can be attributed to interference. The rather high rates for acceptability in the judgment tasks of the Standard German construction on the other hand is again a direct confirmation of the Decathlon model: dialect speakers may be regarded as bilinguals of two closely related languages and thus the grammar component may generate both possibilities. This means that if the speaker is not forced to choose in the sense of singling out one version, the Standard German one comes in as a nearly equally acceptable possibility. Recall that in the judgment tasks, the sentences were given in the dialectal phonology and wording. However, to confirm the idea that the higher acceptability rates are indeed an effect of this special kind of bilingualism, further investigations are necessary.

Instead, we will bring in another aspect of dialectal data, namely that of areal distribution. As will be shown in the next section, the results of our investigation do not only differ regarding the number of participants choosing or producing a certain construction – but in addition they show different types of areal patterns. We will argue that the type of pattern can help us to distinguish between parametric variation and conventionalization, i.e. PF variation.

The difference between these two types of variation between languages is one that has been discussed for a long time in generative grammar. Essentially, it is the old question which parts of the grammar belong to the 'core' (here: parametric variation) and what can be dismissed to the 'periphery' or mere 'PF-variation' (here: conventionalization), see Chomsky (1981) for basic discussion. We understand parametric variation as a difference in the grammar of two languages that (i) can be reduced to different functional specifications of lexical items, in the sense of the Borer-Chomsky conjecture such that parametric variation is located exclusively in the lexicon. The underlying syntactic structure as well as the general mechanisms and restrictions for the derivation are uniform cross-linguistically. (ii) The difference in the functional specification has consequences for other constructions in the respective area of the grammar; thus we expect systematic co-variation. In this sense, parametric variation has to be located in the core grammar – even though, especially in the case of dialects, i.e. genetically

very close languages, the differences may look rather small at first sight (micro-variation). Such small differences between two dialects occur in many instances however, and it is rather difficult to distinguish parametric and surface variation – a difficulty we will show can be dealt with in this paper.

In the following three case studies, we will demonstrate that with similar types of variation in terms of numbers, different types of areal patterns may occur. We will show that the areal pattern can be taken to be the decisive clue to distinguish between parametric variation and conventionalization: in case the higher acceptability numbers are equally distributed across the area, the question which version surfaces in a subset of the speech community is not a matter of core grammar, it is rather the result of a competition of surface variants. The results of translation tasks often show a clear areal distribution when displayed on a map. The absence of such an areal pattern when the judgments tasks are applied to the same phenomenon hints at a conventionalization such that one (equally possible) version is simply not used – but nevertheless a grammatical possibility in the respective language. In other cases, the numbers for acceptability may rise as well – but the area where this increase occurs is limited. We will take such a pattern to be an instance of parametric variation. The syntactic analyses that we will briefly sketch for these three phenomena account for these two situations in an appropriate way.

3 Case Studies

As was shown in Section 2, the interference effect in translation tasks cannot be taken to be a relevant factor for the differing results from either translation or judgment tasks. So let us have a closer look at the constructions already introduced above. We will start with the relative clauses and then discuss the indefinite article with mass nouns – as these two cases illustrate the opposition between parametric variation and conventionalization. In the third case study, adjectival inflection will be discussed. This will turn out to be an especially interesting case, as the results of the translation task first hint at a parametric difference – but closer investigation reveals that this is not the case.

3.1 Relative clauses

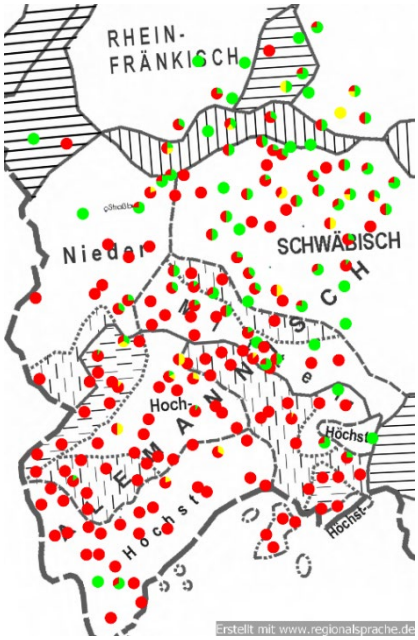
Before entering the discussion about the contrasting results, we briefly discuss some general aspects of relative clause (RC) formation in Southern German dialects and how these were examined in SynAlm. First, it is a well-known fact that there is a difference between CH-ALM and D-ALM in relative clause formation. Van Riemsdijk (2003) and Salzmann (2006) among many others claim that the particle strategy (cf. (1)c) is essentially the only acceptable way to build a relative clause in CH-ALM. In contrast to D-ALM, the insertion of a resumptive pronoun with datives and obliques is again more or less[4] the only strategy to build an RC in these cases, cf. the example in (1)d. Thus, there are essentially no d-pronouns in RCs in CH-ALM and resumptive pronouns compensate for the lack of the pronoun strategy when overt case marking is required. As we will not enter the discussion of the resumptive strategy, let us only mention that this turned out to be too strict a generalization; e.g. with datives, only about 15% of the CH-ALM speakers produced a resumptive pronoun, see Bräuning (2020) for a much more detailed overview and discussion, see also Bräuning & Brandner (2018).

For Bavarian, Bayer (1984) claims that the distribution of the d-pronouns is dependent on the morpho-syntactic environment, e.g. what case the antecedent bears and whether or not the d-pronouns bear the same case or a structural (nominative or accusative) one, in which case the d-pronoun can be freely omitted. The former type of 'matching' effects have been claimed by Salzmann (2006) to be operative in Alemannic as well. Finally, the semantic type of the RC, i.e. whether it is of the restrictive or the appositive type, seems to be relevant for the choice between the various strategies, e.g. Wiltschko (2013).

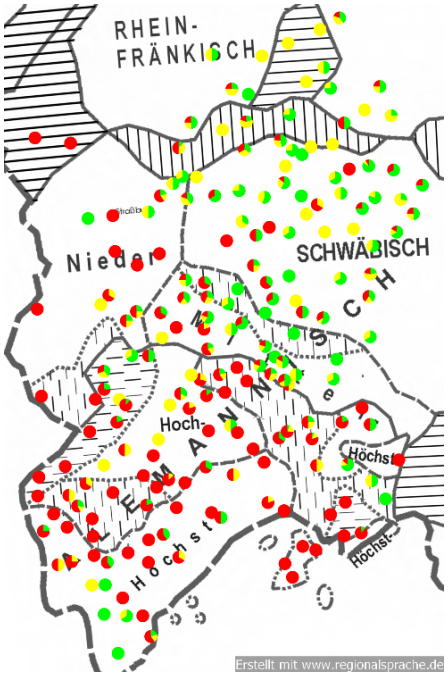
[4] In Salzmann & Seiler (2010), it is admitted that CH-ALM uses d-pronouns as well and that the variation across the CH-ALM is much higher than previously thought. This conforms with our findings.

In Bräuning (2020), the whole range of data obtained was evaluated and her conclusion is that neither one of the morpho-syntactic variables mentioned above nor the semantic division between appositive and restrictive RCs turned out to be a decisive factor. Rather, the distribution of the different strategies remained constant such that in D-ALM the particle strategy and the d-pronoun strategy are distributed nearly equally whereas in CH-ALM, the particle strategy is indeed highly preferred – but it is by no means the exclusive one, as the following data will reveal. Concerning the 'doubling strategy' (*dw*), it is always the least preferred one – but as will be shown in the following – it is nevertheless part of the grammar of essentially all Alemannic speakers. This is a fact that has to be accounted for in principled terms. Concerning the resumptive strategy, it turned out that its acceptability is clearly higher in CH-ALM compared to D-ALM – however, that it is the only strategy in case of datives or obliques, as claimed e.g. in van Riemsdijk (2003), cannot be confirmed. Instead the pronoun strategy is a widespread possibility in CH-ALM as well, as will be shown below. For the discussion here, we will concentrate on the doubling strategy because this illustrates most clearly in what sense the grammar allows for several possibilities.

Consider first Map 1 and Map 2. Map 1 shows the results of a translation task, namely the translation of the sentence given in (6).



Map 1. Translation task; n = 752



Map 2. Choice task; n = 752

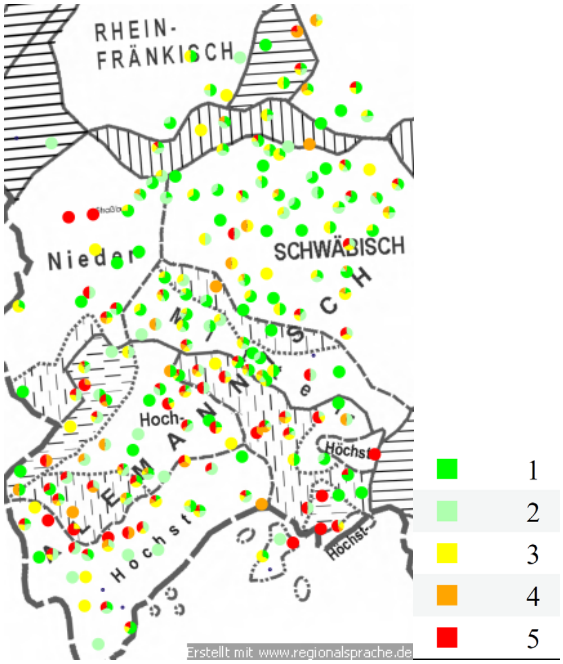
d	*d-strategy, cf. (1a)*	*NP [die da sitzt]*
dw	*dw-strategy, cf. (1b)*	*NP [die wo da sitzt]*
w	*w-strategy, cf. (1c)*	*NP [wo da sitzt]*

The results as displayed on the map confirm at first sight the situation described in the literature, namely that the particle strategy (red dots) is highly preferred in CH-ALM – whereas both the particle and the d-pronoun strategy are available in D-ALM. This might give the impression that the d-pronoun used as a relative pronoun does not belong to the CH-ALM grammar. Note furthermore that the doubling strategy (yellow dots) is the least chosen one in the translation task.

Map 2 shows the result of a choice task which means that all three versions were offered and the informants had to choose one of them as their favorite version. We see an increase in acceptability of the doubling in both D-ALM and CH-ALM – although admittedly higher in D-ALM.

(6) *Die Katze, die da sitzt*
the cat RP there sits
'The cat that is sitting there.'

Turning now to the 5-point scale where the informants had to rate the sentence according to their own personal judgment, the picture changes again.



Map 4. Judgment task for a relative clause with the dw-strategy 1 = natural 5 = not possible; n = 752

Note that in this type of task, the informants can judge different versions of the same sentence and thus express their relative preferences in direct comparison to the other versions and they do not have to 'dismiss' one of them as opposed to the translation and choice tasks. The picture that emerges from Map 4 that – despite some smaller regions where the doubling version is indeed rejected[5] - the doubling version is acceptable across the Alemannic area in both the Swiss and the German regions.

Table 1 shows the results of 752[6] informants (given in percentages):

Table 1. Rounded percentages for the choice of RCI in translation, choice and acceptability tasks

	Translation Task		Choice		5-scale (1/2 rating)	
	D-ALM	CH-ALM	D-ALM	CH-ALM	D-ALM	CH-ALM
d (pronoun)	31	2	43	10	74	35
dw (doubling)	4	3	29	11	58	40
w (particle)	56	89	25	76	52	67

We can clearly see how the acceptability of the doubling strategy in CH-ALM increases constantly with the task type as presented in Table 1. The choice task and especially the 5-point scale show higher percentages for the doubling construction compared to the translation task. As said above, the choice task is in a way closer to the translation task, as participants are not allowed to opt for several versions – in contrast to the judgment task where this possibility is in principle given. Thus the higher acceptability must have to with the fact that the doubling was presented as one possibility. The higher acceptability then could be interpreted as something

[5] Note that the few deep red dots (meaning complete rejection) are mostly situated either in Alsace or in regions in Switzerland that are surrounded by Italian speaking regions. Whether this fact is of importance, e.g. because there is less exposure to Standard German remains to be shown.

[6] Not all informants did give a translation; sometimes they used a different construction (e.g. two independent clauses); therefore again the numbers do not sum up to 100%.

coming close to a kind of "priming effect"[7]: when confronted with the doubling strategy, the number of participants choosing this option increases. In the judgment task, a high rating of doubling does not necessarily lead to a low rating of the other options. And thus we get acceptability rates higher or close to 50% for the nearly non-existent doubling construction when considering only the translation task. Therefore, these data are again direct confirmation of the Decathlon model in that the doubling strategy is a grammatical option for these speakers but obviously dispreferred in tasks where a choice must be made (very much in translation tasks, a bit less if confronted with it in the choice-task). Thus the syntactic modelling must take into account that doubling is an equal output of the derivation. In order to do so, we will follow Bräuning (2020) who models this situation by suggesting one (identical) underlying structure, see also Hladnik (2015) for a similar approach based on Slavic data with essentially the same properties as in Alemannic.

We assume an external head analysis with movement of an OP-phrase (coindexed with the head noun) to Spec-CP. The Copy theory of movement requires that there is a representation of all relevant elements in the various positions. A further assumption is that the Operator feature resides in the D-layer (Wiltschko, 1998), which in turn requires a nominal projection to be deleted in case the D-pronoun is not used as a determiner but as a pronoun, whether it be demonstrative or relative. Therefore both occur as d-pronouns and never as a simple personal pronoun, i.e. *er/sie/es* (he/she/it). The operator itself has no PF spellout. The final ingredient of the account is that the pronoun itself is located in the Spec-C position and thus the head position of the CP is free. It is assumed that this head position of the CP always contains the particle *wo*, which may have an overt spellout or not, if the spec-position is filled. This gives the possibilities in (7) where strike-through indicates movement and grey PF-deleted:

(7) a. [OP φ + elided noun wo ~~OP φ + elided noun~~] d-

b. [OP φ + elided noun wo ~~OP φ + elided noun~~] d- + wo

c. [OP φ + elided noun wo ~~OP φ + elided noun~~] wo

d. [OP φ + elided noun wo ~~OP φ~~ + elided noun] wo … res

→ elided noun turned into a resumptive (without D-layer)

e. *[OP φ + elided noun wo/wo ~~OP φ~~ + elided noun] d- + (wo) … res

The only ungrammatical outcome is the realization pattern in (7)e. where the φ-features are spelled out twice, due to the overt spellout of the elided noun as a resumptive. This accounts for the fact that sentences with a d-pronoun in Spec-CP and a resumptive are completely rejected.

Note that recoverability is guaranteed in all versions and furthermore that the common restriction in German, that at least one position in an embedded CP must be overtly realized, is accounted for as well. We suggest thus that (7) is the structure common to all relative clauses in Alemannic. Which PF-deletion operations apply is a matter of conventionalization. But all versions (except for (7)e., which is ruled out for grammatical reasons) are in principle available to speakers of Alemannic. In other words, if the informants have the opportunity to rate them in an environment where they can weigh the versions without choosing one, all the possibilities show up. What at first seemed to be a kind of parametric difference between sub-dialects of Alemannic is thus under closer inspection merelya conventionalization regulating which element is preferably spelled out.

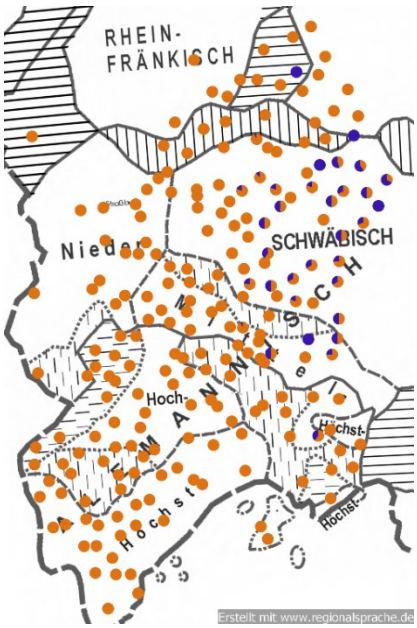
[7] We will surely not enter a discussion about the relevance of priming in psycholinguistic research, therefore the quotation marks. It should also be noted that we tested this effect with several sentences and it was not found in every environment. Still, that in some cases, the choice of doubling increases even in CH-ALM shows that this construction is obviously part of the grammar.

3.2 Indefinite Article with Mass Nouns

Realizing an indefinite article (IA) with mass nouns is a phenomenon known to be common in the Bavarian dialect (*I brauch a geld* – I need a cash) – but it is attested in Alemannic as well, although to a lower extent. Again, data for this construction were gathered using a translation task and a judgment task. The relevant sentence is given in (8):

(8) *Habt ihr noch (ein) Mehl im Haus.*
have you PRT (a) flour in.the house
'Do you still have some flour in the house?'

From 757 informants, only 8% translated with an IA. Now this low rate could be due to the Standard German influence, since in this variety, mass nouns may never occur with an IA. Interestingly, the 8% who chose the "Bavarian" version can be located directly next to a Bavarian[8] region as shown in Map 3:



Translation task:
Habt ihr noch Mehl im Haus?
n = 757
blue: translation **with** indefinite article (8%)
orange: no indefinite determiner

Map 3. Choice of indefinite article before mass noun

Thus, this seems to be a case of language change via contact and the low rate can be explained because the region where these two dialects are in direct contact is a rather small one. When it comes to the judgment data, we find the expected increase in acceptability - however, the now larger area in which IA with mass nouns are acceptable still reflects the influence from the Bavarian dialect. What we now find is an uninterrupted spread from the Bavarian border, cf. Map 4. The absolute numbers are given in Table 2; note the difference between D-ALM and CH-ALM. This judgment task was included in a later questionnaire, and therefore the total number is lower, as the number of informants decreased during the nearly five years of the project:

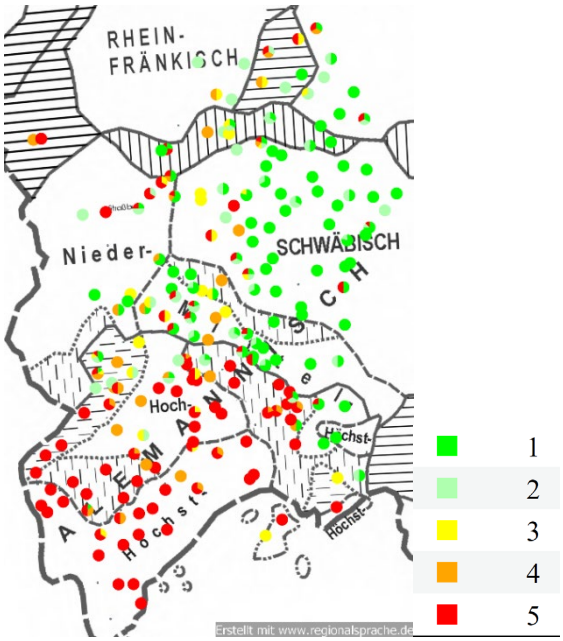
[8] In fact, the region directly adjacent to our area investigation (Allgäu) is part of Bavaria in the political sense but the dialect there belongs to Alemannic, cf. Wiesinger (1983).

Table 2. Acceptability of the indefinite article with mass nouns

Acceptability of indefinite determiner with mass noun	D-ALM (n= 326) in %	CH-ALM (n= 176) in %
1 (natural)	50	2
2	18	4
3	7	4
4	6	13
5 (not possible)	11	61

If we take ratings with 1-2 together as natural and thus 'acceptable' – as we did throughout in this paper – and 4-5 as 'rejected', we get an overall picture of 68% acceptability in D-ALM in contrast to 74% rejection in CH-ALM[9].

(9) *Habt ihr noch ein Mehl im Haus?*
Have you PRT a flour in.the house
'Do you still have some flour in the house?'



Map 4. Judgment 5-point scale for indefinite article with mass nouns; n = 502

With very few exceptions, the better ratings for this construction in Switzerland can be found near the border to Germany. Note furthermore (also again with a few exceptions) the nearly constant increase of rejection from the East to the West in Germany. This picture, especially the really strong rejection in CH-ALM, calls for an explanation that sticks to two different grammars within Alemannic where one has adopted the Bavarian make-up of the DP when it comes to mass nouns and the other shows the same setting as in Standard German.

As mentioned in the introduction, we assume an approach to parametric variation which relies crucially on the functional specification of the respective lexical items that realize an invariable functional sequence above the lexical root, much in the sense of Borer's (2005) 'exoskeletal syntax'. Subsequent work in this spirit, as it is especially put forward in the framework called 'nanosyntax', cf. Baunaz et al. (2018) for an overview, posits a fine-grained functional sequence above the nominal root with roughly the following projections, see Hachem (2015), Rehn (2019) and Grimm (2012) for semantic-conceptual considerations for these distinctions, cf. (10):

[9] Since the ratings with 3 are very few in both regions, we will ignore them here.

(10) Fseq (functional sequence) above the noun:

Number (plural,Q) collectiveindividual **bounded mass** √noun

The noun itself always "starts out" with an unbounded reading, i.e. something that comes close to a mass interpretation, dubbed "property of kinds" in Borik & Espinal (2015). The observation, cf. Borer (2005), is that even what is generally assumed to be an inherent count noun can be coerced to a mass reading when it occurs without a determiner and vice versa, mass nouns can get a count reading, cf. the examples given in (11).

(11) a. There is dog on the floor (mass)

b. There is a dog on the floor (individual)

c. There is wine on the floor (mass, substance)

Our data thus confirm that there is a certain flexibility concerning the mass-count distinction. As just seen, it is the morpho-syntactic environment that determines the interpretation of a noun as mass or count. And this is the point where languages may differ from each other in that they use different means to encode a given interpretation, cf. Zhang (2012) for a discussion of Chinese.

The important point is now that our data give evidence for the additional layer *bounded mass*, as already highlighted in the functional sequence above: bounded mass stands for the pseudo-partitive in that it encodes a proper subset of the kind denoted by the mass noun. This functional layer is universally present, which is evident from its overt spell-out as the partitive article (*de la* etc.) e.g. in the Romance languages. When this reading is expressed, the functional sequence stops at this point. An individual reading on the other hand introduces a defined entity. The claim is thus that the IA is the lexicalization of this additional functional layer. The distinction can be made explicit with the following contrast, given in Standard German:

(12) a. *Hast du mir ein Mehl?* *Ja, ich bringe *es/davon/ein bisschen.*
have you me a flour yes, I bring it/ of.it/ a bit
'Do you have flour for me?' 'Yes, I'll bring some/a bit over.'

b. *Hast du mir eine Tüte Mehl* *Ja, ich bring sie/*davon/*ein bisschen.*
have you me a bag flour yes, I bring it/ of.it/ a bit
'Do you have a bag of flour for me?' 'Yes, I'll bring it over.'

If only the indefinite determiner with a mass noun is used, no individual variable and with it a discourse referent is introduced and thus it cannot be picked up anaphorically by a pronoun. Only a weak quantifier (ein bisschen = 'a bit') or a partitive particle (*davon* = '([some] of it') is possible. On the other hand, in (12)b the explicitly mentioned container noun introduces an individual and thus pronominal co-reference is possible. A further indication that we are dealing with a syntactically reflected difference is the fact that with the bounded mass reading, the preposition *an* is used (*genug an Mehl* = enough of flour) whereas the individual reading requires an extra DP and the preposition *von* (*genug von dem Mehl* = enough of the flour). These contrasts show that the IA in the respective dialects has two different specifications: in Bavarian and some Alemannic variants it can lexicalize the bounded mass reading – in addition to the individual one – whereas in CH-ALM, the IA can lexicalize only the individual reading.

The following data bolster this claim. If it is true that in a given variant, the IA can lexicalize the bounded mass reading, it should occur with prototypical count nouns but allow a bounded mass as well, i.e. a lexical ambiguity or syncretism. In SynAlm this was directly tested by offering the sentence in (13):

(13) *Ich hätte gern mal wieder einen Fisch zum Mittagessen* (Standard German version)

I had PRT PRT again a fish to.the lunch
'I would like to have (a) fish for lunch again some time.'

The informants were then asked what interpretation they would assign this sentence. The options given were the following:

a) necessarily a whole/complete fish or

b) only a dish containing fish or

c) both readings

Figure 6 gives the results and shows how many participants chose a), b) or c) in Germany compared to Switzerland:

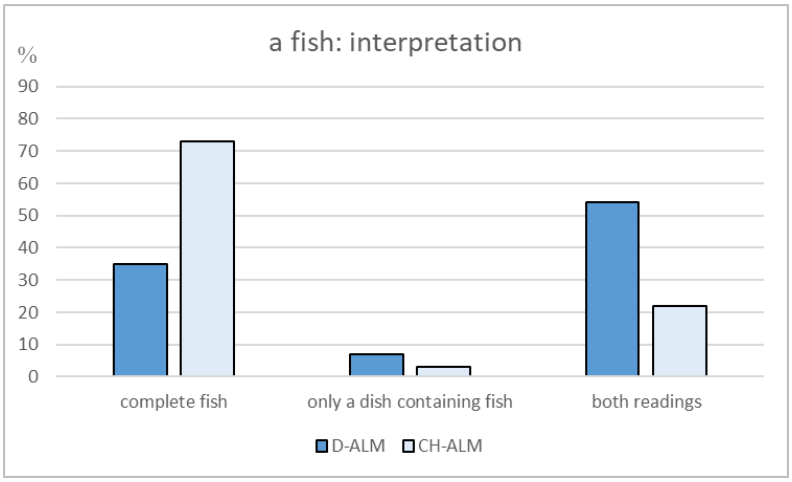


Figure 6. Results for assigning an interpretation to (13); n = 517

As can be seen, reading a), the 'complete fish', i.e. the individual reading, is highly preferred in CH-ALM. The 'both readings' possibility on the other hand has a much higher rate in Germany. The very low preference for b) (a dish with fish), the 'stuff' reading – by exclusion of the other readings – can be explained by the ambiguous reading of the indefinite article: it has the individual reading in all variants and only in some the additional pseudo-partitive one. The very same questions were asked when a version of the sentence without the IA was offered. And as expected, the individual reading was essentially absent.

If we are indeed dealing with a parametric difference between the two variants of Alemannic, we expect that we find effects of this distinction also in other constructions involving the indefinite determiner. And indeed, an indefinite article in addition to a weak quantifier as in (14) yields different results:

(14) *ein wenig* ***ein*** *Wasser* acceptability in D-ALM 23%; in CH-ALM 2%
a little a water

As a last point to bolster the claim that there is indeed a parametric difference, consider the following data. As is known from the literature, see e.g. Glaser (1993), the indefinite article (either in plural or the singular form) can be used in Bavarian to express partitive not only with mass nouns but also with nouns that are interpreted prototypically as count nouns, e.g. cherries as in (15).

(15) *i möchte oi kirschn*
I want (some) cherries

To summarize, the areal pattern revealed shows that we have a parametric difference between different variants of Alemannic. This parametric difference was modeled following Borer's (2005) exoskeletal approach. The functional sequence is indeed universal – but the lexical items with their respective functional specification may differ across languages. We have seen a minimal difference in the functional specification of the indefinite article and it turned out that the respective grammars are consistent – as expected from parametric variation. The important point for our discussion however is that there is no 'latent' presence of the respective other

version in the relevant sub-dialect that shows up in judgment tasks – as it was the case with the doubling construction in relative clauses. Instead, especially CH-ALM and the western parts of D-ALM resist strongly to this option. Note that if we had only looked at the numbers – without distinguishing between D-ALM and CH-ALM, the differing outcomes of translation and judgment tasks would have been interpreted pretty much like the one with the relative clauses, and an important parametric difference would have been left undetected. The tree in Figure 7 illustrates the various possibilities: irrespective of the type of the nominal itself (mass or count) the first functional projection above it is responsible for the bounded mass reading (BM). This head may have different lexicalizations, including partitive genitive in Middle High German, which used to be an alternative to the usage of the indefinite article, see Presslich (2000), as well as the IA in Bavarian and some sub-varieties of Alemannic. When it comes to the individual reading, a higher functional head is projected and all variants under discussion lexicalize this position with the IA. In order to capture the ambiguity in the sub-variety of Alemannic that patterns with Bavarian, we will suggest that the IA in this case originates in the BM position (for the bounded mass reading) – but moves higher to the Ind-head, in case the individual reading is chosen (orange arrow):

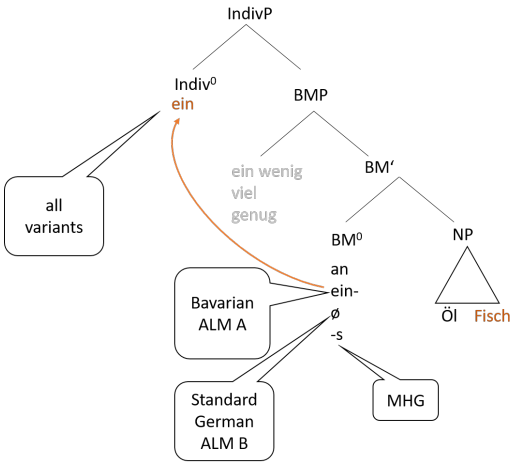


Figure 7: The f-sequence as a tree with the various lexical realizations for 'bounded mass'

3.3 Uninflected Attributive Adjectives:

As noted above, in Standard German, attributive adjectives obligatorily inflect and the type of inflection (strong or weak) depends on the inflectional properties of the preceding article, as has been often discussed in the literature (cf. Olsen, 1991; Leu 2015; Gallmann 1996):

(16) a. *ein gut-er Wein*
a good-STR wine

b. *d-er gut-e Wein*
d-STR good-WK wine

The main difference between Standard German and Alemannic, as was pointed out, is the fact that in Alemannic, adjectives can occur uninflected regardless of the inflection of the article:

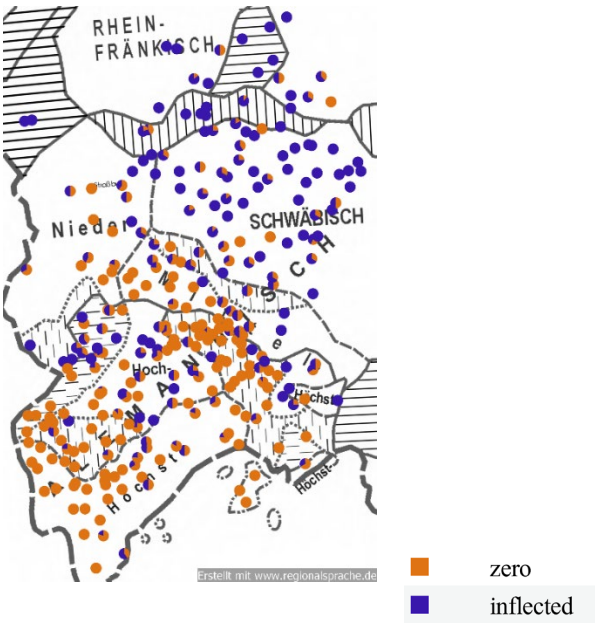
(17) a. *a guad Wii*
a good wine

b. *de gued Wii*
the good wine

When comparing the results of judgment and translation tasks for adjectival inflection, they are again similar to the ones for the different RCI-strategies. This means that the translation task produced an areal pattern that does not appear in the judgment data. The results of the translation task for the sentence in (18) as displayed on Map 5 show an areal distribution in which the

Highest to Middle Alemannic regions clearly show a much higher rate of uninflected adjectives compared to the rest of the Alemannic area.

(18) *Geh nur, der braun-e Hund tut dir nichts.*
go PRT the brown.WK dog does you nothing
'Just go, the brown dog won't harm you.'

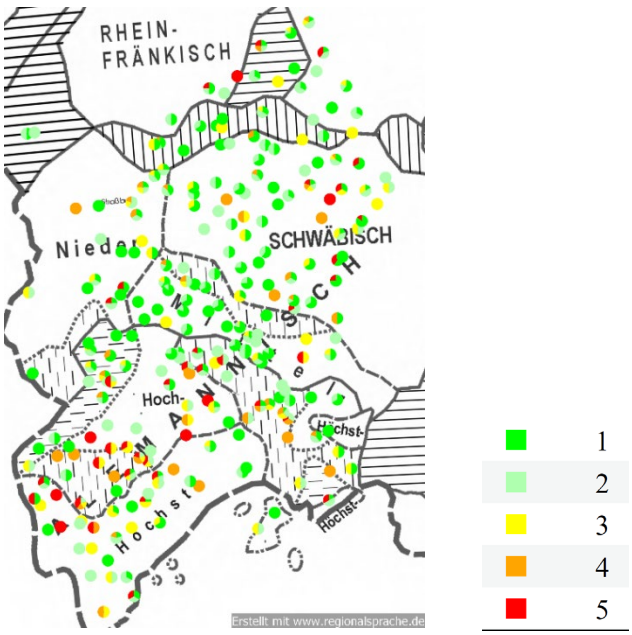


Map 5. Distribution of inflected and uninflected adjectives based on a translation task; n = 990

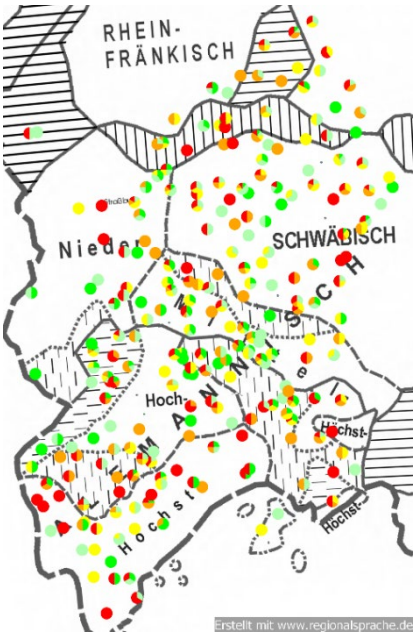
In a follow up questionnaire, the occurrence of uninflected adjectives was systematically tested in which both the areal pattern and different morpho-syntactic factors were adressed (i.e. definite/indefinite DPs, singular vs plural, oblique vs non-oblique). These variables were chosen based on information on diachronic and dialectal data from the literature in which these were shown to have an impact on the (non)realizaton of uninflected adjectives (e.g. Staedele, 1927; Solms & Wegera, 1991; Klein, 2007). Participants were asked to rate sentences with uninflected adjectives (and as a control pattern also with inflected adjectives) on the 5-point scale that was already introduced above. Interestingly, the acceptability of uninflected adjectives was equally high (or low) across the Alemannic regions. Acceptability (i.e. a rating with 1 or 2) ranged from over 50% in non-oblique singular DPs as in Map 7 down to 20% in feminine, oblique, or plural DPs as illustrated in Map 6. The corresponding examples are given in (19) and (20).

(19) *des lang Seil hot sich verwurschtelt*
the long rope has itself tangled.up
'The long rope got tangled up.'

(20) *D' Lena isch mit dem nui Wage komme.*
the Lena is with the new car come
'Lena came with the new car.'



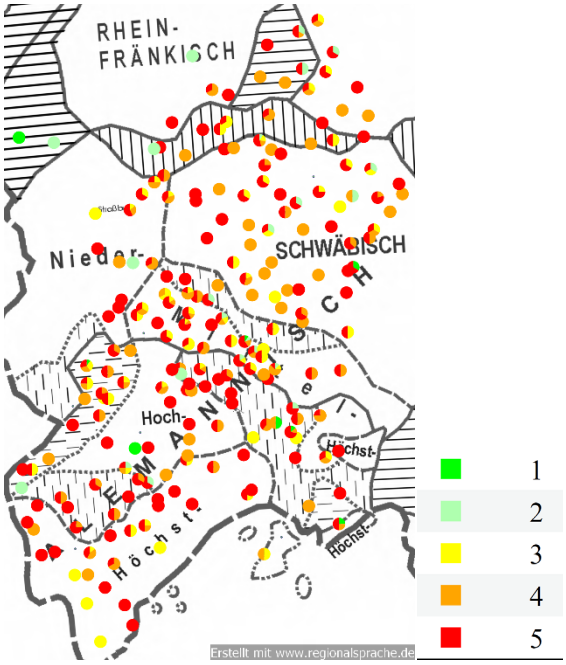
Map 7. Definite non-oblique DP; n = 757



Map 6. Definite oblique DP; n = 757

The judgment task also revealed that uninflected adjectives were equally rejected in one construction across the Alemannic region, namely in the absence of an article: only 5.6% received a rating with 1 or 2 for the example in (21). This means that although uninflected adjectives show different frequency in production across the different Alemannic varieties – the restriction on their occurrence is the same in both. Uninflected adjectives can only occur in DPs with articles but not in DPs without articles, as shown in Map 8.

(21) **gut Wein ist halt teuer*
good wine is PRT expensive
'Good wine just is expensive.'



Map 8. DP without article; n = 591

This observation allows us to identify restrictions on morphological marking within the DP in general. Note that in German only the indefinite article can appear uninflected, and the uninflected forms only occur in nominative or accusative case. The definite article always

inflects. In singular DPs the definite article bears strong inflection which marks *phi*-features (number and gender) and case. In the plural, only number and oblique case are marked. This observation shows that a consistent morphological marking can only be found for two features across the paradigms of the article: number and oblique case. The indefinite article is inherently marked for number and always receives a singular interpretation. On the definite article, number is marked via (strong) inflection.

Table 3. Paradigm of the indefinite article (a tall man – a tall child – a tall woman)

Sing	Masc	Neut	Fem
Nom	ein groß-er Mann	ein groß-es Kind	ein-e groß-e Frau
Acc	ein-en groß-en Mann	ein groß-es Kind	ein-e groß-e Frau
Dat	ein-em groß-en Mann	ein-em groß-en Kind	ein-er groß-en Frau
Gen	ein-es groß-en Mannes	ein-es groß-en Kindes	ein-er groß-en Frau

Table 4. Paradigm of the definite article (the man – the child – the woman – the men/children/women

	Masc	Neut	Fem	Plural (all genders)
Nom	d-er Mann	d-as Kind	d-ie Frau	d-ie Männer/Kinder/Frauen
Acc	d-en Mann	d-as Kind	d-ie Frau	d-ie Männer/Kinder/Frauen
Dat	d-em Mann	d-em Kind	d-er Frau	d-en Männern/Kindern/Frauen
Gen	d-es Mannes	d-es Kindes	d-er Frau	d-er Männer/Kinder/Frauen

Based on the observations on feature realization on the article, number was identified as the only *phi*-feature that must always be morphologically marked in Rehn (2019). As already noted above, number can either be realized via strong inflection or by inserting an indefinite article, which is inherently singular. This fact can now be connected to the restriction on uninflected adjectives to only appear in DPs with an article (inflected or uninflected). When an article is realized, the requirement for overt number marking is met and inflection on the adjective is optional. In the absence of an article, another element must realize the required feature, and this affects adjective. This would explain the obligatory inflection in this case.

The observed restriction on uninflected adjectives to only occur in DPs with overt number marking in D not only allows us to capture adjectival inflection, but can also account for the absence of inflection on the indefinite article in some cells of the paradigm (cf. Table 3). Number must be overtly marked in D and number marking is either realized via strong inflection on the article or by insertion of an indefinite article, which is inherently singular. However, oblique case[10] also requires overt morphological marking, as has been already noted. We follow Bayer, Bader, & Meng (2001) in assuming a KP to be the highest layer in oblique DPs. The basic structure for definite and indefinite DPs is thus as illustrated in (22) to (25). In (22), an indefinite non-oblique DP, the indefinite article is inherently marked for singular and the requirement for overt number marking is met. The same holds for (23), a definite DP. The definite article inflects for number, gender and case, so again the requirement for number marking is fulfilled. In (22) and (23), the KP is absent as the DPs are non-oblique. In (24) and (25) there is a KP projected above the DP, as we have an oblique DP. In this case, the article is first merged in D to mark number and then it moves to K for overt marking of oblique case. In all four examples the adjective can, but does not have to inflect as all relevant features are morphologically realized via an article.

(22) [DP [num] ein [ModifP klein-(er) [num][gen][NP Hund[mask][sing]]]]

(23) [DP [num] d-er [ModifP klein-(e) [wk][NP Hund[mask][sing]]]]

[10] As the paradigm of the indefinite article shows, it can be uninflected in nominative and accusative but it does not always appear in its uninflected form, which raises the question of case marking for nominative/accusative. Diachronic and dialectal data provide evidence for analyzing the inflectional endings in these cases as mere analogical forms that do not carry morpho-syntactic features (cf. Bittner, 2006 on the diachrony of the indefinite article paradigm).

(24) [KP d-em [DP [num][gen] d-em [ModifP klein-(en) [num][gen][NP Hund[mask][sing]]]]

(25) [KP einem [DP [num][gen] ein-em [ModifP klein-(en) [num][gen][NP Hund[mask][sing]]]]]

In DPs without an article, the requirement for overt feature marking must be compensated for by another element, which can either be the adjective or the noun itself (cf. also Rehn, 2019). This is illustrated in (26) and (27). In (26), no article is present but the sentence is nevertheless grammatical, as number and case are marked on the noun. In (27), an adjective realizes the relevant features as feminine nouns never inflect for case. The construction is grammatical as the requirements on feature marking are met in the strong genitive inflection on the adjective. Notice that the adjective is obligatory here.

Two solutions are possible to account for the fact that feature marking is not realized via an article element. We can assume movement of N or A to D/K as shown in (28) or we could assume an analysis along the lines of Olsen (1991), who suggests that – based on Emonds (1987)'s Empty Category Principle – *phi*-features and case may be realized via inflection on another element in the absence of an article. For the purpose of this paper either solution may work and we therefore do not commit ourselves to one of the two.

(26) *Ich helfe Freund-e-n beim Umzug.*
I help friend-PL-OBL at.the moving
'I am helping friends to move house.'

(27) *der Geschmack *(frisch-er) Milch*
the taste fresh-GEN.STR milk GEN.STR = strong genitive inflection
'the taste of fresh milk'

(28) [KP Freunden [DP ~~Freunden~~ [NP ~~Freunden~~[pl]]]] → movement of N to K via D

(29) [KP [DP [num][gen] [ModP frisch-er [num] [gen] [NP Milch [fem]]]]] → ECP

In this section, we have shown that there is variation in the overt realization of adjectival inflection. In the absence of an article, adjectival inflection (or inflection on the noun) is obligatory in order to meet the requirement of number feature marking in German DPs. The (non-)occurrence of uninflected adjectives is thus regulated in the syntax. This means that the morpho-syntactic restriction of their occurrence only in DPs with determiners holds across the Alemannic region. Again, the differences regarding the lower production rates compared to the high acceptability of uninflected adjectives across the Alemannic area do not reflect a parametric difference but they are rather an instance of PF-variation. As uninflected adjectives were shown to be acceptable in all Alemannic regions, the regional pattern is not due to a parametric difference but must be an instance of conventionalization. The fact that uninflected adjectives cannot occur in DPs without an article, however, is a syntactic restriction.

4 Conclusion

In this paper, we discussed what differing results of different methods in dialectal data collection can tell us about the interaction of syntactic constraints with competing PF-realizations, i.e. to distinguish parametric from non-parametric variation. We presented three case studies in which we examined constructions in Alemannic that differ in their morpho-syntactic properties from Standard German using three different data collection methods. We argued that the differing results from these methods are not due to the (non-) validity of one of the methods, see also Arppe & Järvikivi (2007), but that they actually inform us whether the observed variation is due to a parametric difference or to conventionalization. First, we showed that interference from the standard variant is not relevant as the translation tasks do not yield higher rates of interference from the standard. Second, the difference between acceptability and production (translation) rates confirmed the Decathlon model, cf. Featherston (2005). Acceptability tasks regularly provided more facets of a construction than production tasks because of the effects of 'output selection' in the latter.

We interpreted the patterns of low production but high acceptability such that the syntax provides the structure for the construction but that it may nevertheless be not or only rarely produced – which is due to conventionalization rather than parametric variation.

The important insight concerning the interpretation of our data is that translation tasks provide areal patterns – but crucially these are not always due to parametric variation. The decisive factor is the overlap of these areal patterns in both translation and judgment tasks. This means in turn when the outcome of the judgments task in comparison to translation does not yield an areal pattern we have an instance of conventionalization (cf. RCI and adjectival inflection). When, however, both translation and judgment tasks yield essentially the same areal pattern, we have parametric differences (cf. indefinite article with mass nouns).

References

Arppe, A., & Järvikivi, J. (2007). Every method counts: Combining corpus-based and experimental evidence in the study of synonymy. *Corpus Linguistics and Linguistic Theory, 3*(2), 131-159.

Baunaz, L., Haegeman, L., De Clercq, K., & Lander, E. (2018). *Exploring Nanosyntax*. Oxford: Oxford University Press.

Bayer, J. (1984). COMP in Bavarian syntax. *The Linguistic Review, 3*(3), 209-274.

Bayer, J., Bader, M., & Meng, M. (2001). Morphological underspecification meets oblique case: Syntactic and processing effects in German. *Lingua, 111*(4-7), 465-514.

Bittner, D. (2006). Was motiviert die partielle Unflektiertheit des indefiniten Artikels? Markiertheitstheoretische und sprachhistorische Überlegungen/What motivates the partial uninflectedness of the indefinite article? Markedness-theoretical and languagehistorical considerations. *Zeitschrift für germanistische Linguistik, 34*(3), 354-373.

Borer, H. (2005). *In Name Only, Vol. 1*. Oxford: Oxford University Press.

Borik, O., & Espinal, M. T. (2015). Reference to kinds and to other generic expressions in Spanish: definiteness and number. *The Linguistic Review, 32*(2), 167-225.

Brandner, E., (2020) "A "borderline case" of syntactic variation", *Glossa: a journal of general linguistics* 5(1), p.25. doi: https://doi.org/10.5334/gjgl.606

Bräuning, I. (2020). *Relativsatzstrategien im Alemannischen*. Tübingen: Narr Francke Attempto.

Bräuning, I., & Brandner, E. (2018). Die Partikelstrategie in alemannischen Relativsätzen: Dialektsyntaktische Datengewinnung und Auswertung mit Hilfe standardisierter Fragebögen. In T. Ahlers, S. Oberholzer, M. Riccabona & P. Stoeckle (Eds.), *Deutsche Dialekte in Europa: Perspektiven auf Variation, Wandel und Übergänge*, (pp. 123-1544). Zürich: Olms.

Chomsky, N. (1981). *Lectures on Government and Binding*. Dordrecht: Foris.

Emonds, J. E. (1987). The invisible category principle. *Linguistic Inquiry, 18*(4), 613-632.

Featherston, S. (2005). The Decathlon Model of empirical syntax. In M. Reis & S. Kepser (Eds.), *Linguistic Evidence: Empirical, Theoretical and Computational Perspectives* (pp. 187-208). Berlin: Mouton De Gruyter.

Gallmann, P. (1996). Die Steuerung der Flexion in der DP. *Linguistische Berichte 164*, 283-314.

Glaser, E. (1993). Syntaktische Strategien zum Ausdruck von Indefinitheit und Partitivität im Deutschen. In W. Abraham & J. Bayer (Eds.), *Dialektsyntax* (pp. 99-116). Wiesbaden: VS Verlag für Sozialwissenschaften.

Grimm, S. (2012). *Number and Individuation.* Dissertation, Stanford University.

Hachem, M. (2015). *Multifunctionality: The Internal and External Syntax of D-and W-Items in German and Dutch*. Utrecht: LOT.

Hladnik, M. (2015). *Mind the Gap: Resumption in Slavic Relative Clauses*: Dissertation, Utrecht University.

Klein, T. (2007). Von der semantischen zur morphologischen Steuerung. In H. Fix (Ed.), *Beiträge zur Morphologie: Germanisch, Baltisch, Ostseefinnisch*. Odense: University Press of Southern Denmark.

Leu, T. (2015). *The Architecture of Determiners*. Oxford, Massachusetts: Oxford University Press.

Olsen, S. (1991). Die deutsche Nominalphrase als "Determinansphrase". In S. Olsen & G. Fanselow (Eds.), *DET, COMP und INFL: Zur Syntax funktionaler Kategorien und grammatischer Funktionen,* (pp. 35-56). Tübingen: Niemeyer.

Presslich, M. (2000). *Partitivität und Indefinitheit: Die Entstehung und Entwicklung des indefiniten Artikels in den germanischen und romanischen Sprachen am Beispiel des Deutschen, Niederländischen, Französischen und Italienischen*. Frankfurt a. M.: Lang.

Rehn, A. (2017). Zur Steuerung der Adjektivflexion im Alemannischen und Standarddeutschen. In H. Christen, P. Gilles & C. Purschke (Eds.), *Räume, Grenzen, Übergänge: Akten des 5. Kongress der Internationalen Gesellschaft für Dialektologie des Deutschen (IGDD)* (pp. 305-324). Stuttgart: Franz Steiner.

Rehn, A. (2019). *Adjectives and the Syntax of German(ic) DPs.* Dissertation, University of Konstanz.

Salzmann, M. (2006). *Resumptive Prolepsis: A Study in Indirect A'-Dependencies*: LOT: Utrecht.

Salzmann, M., & Seiler, G. (2010). Variation as the exception or the rule? Swiss relatives, revisited. *Sprachwissenschaft, 35*(1), 79-117.

Solms, H.-J., & Wegera, K.-P. (1991). *Grammatik des Frühneuhochdeutschen Vol. VI*. Heidelberg: Winter.

Staedele, A. (1927). *Syntax der Mundart von Stahringen.* Dissertation, Universität Freiburg.

van Riemsdijk, H. C. (2003). East meets West: aboutness relatives in Swiss German. In J. Koster & H. C. van Riemsdijk (Eds.), *Germania et alia. A linguistic webschrift for Hans den Besten* (pp. 1-20): University of Groningen.

Wiesinger, P. (1983). Die Einteilung der deutschen Dialekte. In W. Besch, U. Knoop, W. Putschke & H. E. Wiegand (Eds.), *Dialektologie. Ein Handbuch zur deutschen und allgemeinen Dialekforschung Vol. 2*, (pp. 807-900). Berlin/New York: Walter de Gruyter.

Wiltschko, M. (1998). On the syntax and semantics of (relative) pronouns and determiners. *The Journal of Comparative Germanic Linguistics, 2*(2), 143-181.

Wiltschko, M. (2013). Descriptive relative clauses in Austro-Bavarian german. *Canadian Journal of Linguistics/Revue canadienne de linguistique, 58*(2), 157-189.

Zehetner, L. (1985). *Das bairische Dialektbuch*. München: Beck.

Zhang, N. (2012). Countability and numeral classifiers in Mandarin Chinese. In D. Massam (Ed.), *Count and mass across languages* (pp. 220-237). Oxford: Oxford University Press.