Split Topic in German

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0. Introduction

In the following paper I will be looking at the Split Topic construction in German, a construction that raises interesting issues with respect the treatment of long distance dependencies as movement or chain formation. The data throughout this paper is taken from Glarnertüütsch (GT), a variety of Swiss German spoken in the canton of Glarus. An example of the construction is given in (1).

(1) E chue hätt dr Sepp ekäini gchaufft.
a cow has Sepp none bought
'As for cows, Sepp didn't buy any (at least).'

The typical feature of ST is that two noun phrases[1] are connected to the same argument position. One noun phrase is always in the initial position, and appears determiner-less, or with one of only a limited set of determiners. In (1) the noun phrase *e chue* 'a cow' occupies this position. The second noun phrase appears in the standard argument position, and generally consists of, at least, a determiner, but does not contain an overt head noun. In (1) this is the determiner *ekäini* 'none'. As illustrated in (2+3) modifiers are possible with either of the two noun phrases.

(2) Friiburger chüe hätt dr Sepp schüüni.
Freiburg cows has Sepp beautiful
'Freiburg cows, Sepp owns beautiful ones.'

(3) E chue will dr Sepp äini wo vill milch gitt.
a cow wants Sepp one REL PRN much milk gives
'A cow, Sepp wants one that gives a lot of milk.'

This construction has been analyzed by van Riemsdijk (1989), Tappe (1989) and Fanselow (1988) among others. A number of connectivity effects link the two noun phrases. Van Riemsdijk (1989) provides an extensive list of the connectivity facts that includes agreement in number, gender and case, sensitivity to islands, and binding facts. It is on the basis of these facts that van Riemsdijk (1989) and Tappe (1989) argue for an analysis of the construction in terms of movement.

Although such connectivity effects are typically indicative of movement constructions, there are also a number of immediate obstacles to an analysis of ST in

[1]I will be using noun phrase as a theory neutral term to cover both NP or DP.

terms of movement. The most obvious is what van Riemsdijk calls 'determiner overlap'. This is his term for the extra determiner found in certain examples of ST. Consider again example (1) repeated below as (4a).

(4a) **E** chue hätt dr Sepp **ekäini** gchaufft.

(4b) * ekäi e chue

In (4a) both of the noun phrases linked through ST have a determiner. The noun phrase in the argument has the determiner *ekäini* 'none', while the noun phrase in the initial position has an indefinite article *e*. As can be seen in (4b) it is not possible to form a grammatical noun phrase that uses both determiners at the same time.

1. Properties of ST

In this section I will review some of the main properties of the ST construction. The most thorough overview of these is found in van Riemsdijk (1989). In order to be better able to talk about ST, I will call the noun phrase in the initial position that contains the overt noun head, the ST-head, and the noun phrase that appears in the argument position the ST-base.

1.1. Gap

Examples (5) and (6) illustrate what van Riemsdijk calls the 'gap effect'. In (5) the ST-head consists of the noun phrase *fisch,* and the ST-base of the determiner *ekäi*. A crucial feature of ST is that the ST-base must always be without an overt head noun. Any attempt to have an overt head noun in the ST-base leads to ungrammaticality. This is demonstrated in (6).

(5) Fisch isst ds Leni ekäi.
fish eats Leni no
'Fish, Leni doesn't eat.'

(6) * Fisch isst ds Leni ekäi forälle.
fish eats Leni no trout
'As for fish, Leni doesn't eat trout.'

The existence of a gap is not only strong support for an analysis of the construction in terms of movement, but is virtually a pre-condition. Since movement displaces a constituent we expect to find an empty slot in the spot previously occupied by the moved element.

The data are not quite as simple as van Riemsdijk makes them out to be. Examples where the base determiner is not the negative *ekäi* are not as bad as (6)[2]:

(7) ? Fisch hätt ds Leni erscht drii forälle uusezoge.
fish has Leni yet three trout pulled-out
'As for fish, Leni has only caught three trout yet.'

I will discuss examples such as (7) in more detail below.

1.2. Agreement

Another feature of the Split Topic construction is that the two noun phrases, the ST-head in the topic position and the ST-base in the argument position, must share the same features of case, number, and gender agreement. This is so even though the construction can show two overt determiners for the two noun phrases. A further type of agreement morphology, the so-called weak/strong morphology, need not be shared by the two noun phrases.

1.2.1.

The system of morphological markings within the noun phrase is close to that of standard German with respect to the types of features that are marked (cf. Zwicky 86, Netter 94 for detailed description of the standard German system). However the shape of the markings, affected by phonological sound change, and their distribution, affected by leveling, are different. Following is an overview of the basic properties.

In German any noun phrase must consist of at least one of the three parts determiner, adjective, (head) noun.

(8)

	miini	nüüe	bilder	vum Matterhore
	miini	nüüe	–	vum Matterhore
	miini	–	bilder	vum Matterhore
	miini	–	–	vum Matterhore
	–	nüüi	bilder	vum Matterhore
	–	nüüi	–	vum Matterhore
	–	–	bilder	vum Matterhore
*	–	–	–	vum Matterhore
	my	new	pictures	of the Matterhorn

The examples in (8) illustrate the variety of different possible noun phrases. As can be seen any combination of determiner, adjective, or head noun leads to an acceptable noun phrase as long as at least one is present.

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[2]Haider 1990 stars an example parallel to (7) [his 20c.]. This is probably just a difference in judgment. Although I would agree that (7) [and his 20c] are not perfect, they are still quite acceptable, and considerably better than (6).

Nouns are classified into three syntactic gender classes. The classes are traditionally called masculine, feminine, and neuter. The gender class is an inherent and idiosyncratic property of the noun. A determiner is always marked for the gender of the head noun.

(9) a.

dr	löffel	**ds**	mässer	**d**	gable
the-M	spoon (m)	the-N	knife (n)	the-F	fork (f)

b.

sii**ne**	hund	sii**s**	chalb	sii**ni**	gäiss
his-M	dog (m)	his-N	calf (n)	his-F	goat (f)

The examples in (9) show the realization with nouns of each gender, of the definite article, and the possessive *sii(n)-* 'his' respectively.

Number is marked on both the determiner and the noun.

(10)

sii**ni**	h**ü**nd	**d**	ch**ä**lb**er**	**d**	gäiss**e**
his-PLUR	dogs	the-PLUR	calves	the-PLUR	goats

In the above examples, the plural is marked on the determiner, which usually takes a form different from the singular. The plural is marked on the noun as well. There are a number of different strategies for realizing plurals in GT: either through a change in quality of the stem vowel, so called umlaut, as seen in the case of *hünd* 'dogs', through suffixation, as in the case of *gäisse* 'goats', or a combination of both, as in *chälber* 'calves'.

There are two cases in GT, traditionally called nominative/accusative (N/A) and dative (DAT). The former is used to mark subjects and direct objects, but a number of verbs exceptionally mark their object with dative. Examples of the latter kind are *hälffe* 'help' and *truue* 'trust'.

(11)

…	**em**	Häiri	hälffe	…	**dr**	Häiri	gsii
	DAT	Henry	help		N/A	Henry	see

The examples in (11) show the realization of case. Note that in GT proper names take determiners just as other nouns do, and this determiner serves as the locus of case marking. In the first case the noun phrase is the object of *hälffe* and must therefore be dative as shown by the determiner *em*. In the second example the verb *gsii* 'see' takes an accusative object and this is reflected by the determiner form *dr*.

In summary so far we have seen that noun phrases in GT are marked for the properties of gender, number, and case, and that these markings are generally realized on the determiner. An additional complication is that certain determiner realize a different set of forms when they are not followed by either a head noun or an adjective.

(12)	en maa	en guete	*vs.*	äi**ne**	
	a man	a good [m, sg]		one [m, sg]	
	ekäi chue	ekäi schüüni	*vs.*	ekäi**ni**	
	no cow	no beautiful [f, sg]		none [f, sg]	

In the examples in (12) the indefinite article *e* and the determiner *ekäi* 'none' are both shown in their realization before a noun, before an adjective, and without a following element. The last case requires a more elaborate morphological marking (indicated in bold). The form with the extra marking is usually referred to as the strong form, while the form that appears before nouns and adjectives is called the weak form.

Finally a few determiners have both reduced and unreduced allomorphs, with the choice of allomorph determined syntactically. For such cases the reduced form appears only when it immediately comes before the head noun, while the unreduced form is used whenever an adjective is present. This type of alternation is found with the feminine singular definite determiner (13a). A similarly conditioned alternation is found in the case of the neuter singular indefinite determiner, which can optionally drop its gender marking in conjunction with an adjective (13b).

(13) a.	**d** frau	**di** guet frau	
	the woman	the good woman	
b.	**es** chind	**e(s)** chliises chind	
	a child	a small child	

The attributive adjectives are also morphologically marked, and their markings reflect the number, gender, and case of the entire noun phrase as well. The exact realization of these markings however depends on the determiner. The simplest description of the facts is in terms of two sets of markings: a richer paradigm with more distinctions, called strong, and a poorer paradigm with fewer distinctions, called weak.

The strong paradigm appears when there is no determiner:

(14)	guet**em** broot	gschiid**i** fraue	tüür**e** wii
	[dat, sing, n]	[n/a, plur, f]	[n/a, sing, m]
	good bread	smart women	expensive wine

The weak paradigm typically appears with the definite article among others.

(15)	emene guet**e** broot	di gschiid**e** fraue	dr tüür wii
	[dat, sing, n]	[n/a, plur, f]	[n/a, sing, m]

Other determiners call for paradigms consisting of varying mixtures of forms from both sets.

(16) ekäim guete broot ekäi gschiidi fraue ekäi tüüre wii
[WK] [STR] [STR]

(17) miim guete broot miini gschiide fraue miine tüüre wii
[WK] [WK] [STR]

Example (16) illustrates part of the paradigm for *ekäi-* 'no(ne)'. This determiner requires weak morphology in the oblique/dative case, but strong morphology otherwise. Example (17) shows the same forms for *mii(n)-* 'my'. In this case the only occurrence of strong morphology is witnessed in the nominative/accusative masculine singular. All other instances require weak morphology.

The use of term strong for both the inflection of the determiner in isolation (shown in 13), and the inflection of the adjective is no coincidence, since the form of these inflections is identical. A generalization that holds true for standard German, as well as GT, is that at least one of the obligatory parts of the noun phrase — determiner, adjective, or head noun if inflectable — must show a strong inflection. A corollary of this is that uninflected determiners require adjectives to take the strong form. This is true even within a paradigm, so that if a determiner has some uninflected forms, it will require an adjective to take the strong form in those cases.

1.3. morphological connectivity effects

1.3.1. Connectivity of case, number, and gender agreement

The array of properties all requiring overt marking provide an ideal tool for probing connectivity relationships. Van Riemsdijk applies this test to the ST construction, and duly notes that number and case agreement are required. To this we can add gender agreement as well, as will be shown below.

Consider the example in (18). In this example the ST-base is the DP consisting of the determiner *mängi* 'many'. This determiner requires the NP that it modifies to be in the singular. Indeed we see that for the DP that appears in the sentence initial topic position as the ST-head, only a DP that shows singular agreement leads to a grammatical outcome. Thus *e gäiss* 'a goat', which is singular, is a possible ST-head.

(18) E gäiss hätt ds Linggi schu mängi gmullche
a goat [SG] has Linggi already many [SG] milked
'Linggi has already milked many goats.'

In contrast to this we see in (19) that if the ST-head and the ST-base do not agree in number the resulting sentence is ungrammatical. Example (19) is identical to (18) in all respects, except that the DP in the ST-head *gäisse* is plural.

(19) * Gäisse hätt ds Linggi schu mängi gmullche
goats [PL] many [SG]

Aside from number agreement between the ST-head and the ST-base, (19) can be used to demonstrate gender and case agreement as well. Some relevant test sentences are shown in (20) and (21). Example (20) illustrates a mismatch in grammatical gender between the ST-head, which is feminine, and the determiner in the ST-base, which shows the form appropriate for an NP of neuter gender. Finally (21) illustrates the situation where the case of the ST-head and the ST-base do not match, the ST-head being nominative/accusative in contrast with the dative form of the ST-base.

(20) * E gäiss hätt ds Linggi schu mängs gmullche
a goat [FEM] many [NTR]

(21) * E gäiss hätt ds Linggi schu mäng**ere** en Sträich gspillt.
a goat [N/A] many [DAT] a trick played
'Linggi has played tricks on many goats.'

Finally in (22) another example with a different determiner. Here we have the determiner *vill* 'many' forming the ST-base. The determiner *vill* contrasts with *mäng-* in that it requires plural agreement of its complement, and in this case only the DP with plural agreement *gäisse* is a possible ST-head.[3]

(22) Gäisse /*e gäiss hätt ds Linggi schu vill gmullche
goats [PL] /*a goat [SG] many [PL]

So far the agreement facts are clearly compatible with an account in terms of movement. In fact if the ST-head is base generated in argument position, and moved to the sentence initial position, we would have an immediate account of the connectivity, in number, gender, and case. It should be noted that number and gender agreement would also follow under an account in terms of discourse connectivity, just as they do with pronouns. Case agreement is therefore crucial.

The problem with case agreement is that only accusatives seem to be acceptable ST-bases (Tappe 1989, cf. also van Riemsdijk 1989). The status of examples such as (23), where the ST-base is dative, is unclear.

[3]Irrelevant to the issue at hand is the fact that the determiner *vill* has a second meaning, 'many times'. The example with the singular NP in topic position is grammatical with the meaning 'Linggi has milked a goat many times.'

(23) ?? Enere gäiss hätt ds Linggi schu mängere en Sträich gspillt.
a goat [DAT] many [DAT] a trick played
'Linggi has played tricks on many goats.'

If indeed only accusatives are acceptable as ST-bases, then the fact that both the ST-base and the ST-head are accusative might be an instance of 'case-coincidence' rather than case-agreement. The accusative case on the ST-head might simply be a form of default case marking.

1.3.2. Locality of the Strong/Weak Agreement

Recalling the discussion of agreement morphology in section 1.2. we noted the following generalization: Strong morphology is realized on the determiner, if inflectable. If the determiner is uninflectable, or there is no determiner present, the strong morphology is realized on any adjectives present, and on the head noun if the latter is inflectable. Finally, if neither an adjective nor a head noun is present, the strong morphology can be realized on the determiner, even if this determiner is usually uninflected.

The last case is important, since the prototypical examples of ST-bases are determiners without accompanying material. As van Riemsdijk notes, certain uninflected determiners must realize strong morphology, when they form an ST-base. An example pair that illustrates this point is given in (24/25). Example (24) shows that the determiner *ekäi-* 'no(ne)' is uninflected when realized in conjunction with an overt noun. In the ST construction however only the form with strong morphology is acceptable, as illustrated in (25). As van Riemsdijk points out the form *ekäini* that appears in (25) is the form expected when the determiner is realized without an accompanying adjective or head noun. The alternation of *ekäi*/*ekäini* is parallel to that found in English *no*/*none, my*/*mine,* etc.

(24) Hüür hätt ds Linggi nuch *ekäi**ni** /ekäi gäiss gmullche
this year *none [STR] /no [–] goat
'Linggi hasn't milked a goat yet this year.'

(25) E gäiss hätt ds Linggi hüür nuch ekäi**ni** /*ekäi gmullche
none [STR] /*no [–]

More generally we can say that the conditions under which strong morphology is found depend only on the environment in the output. Consider for instance example (26), which differs minimally from (25) in that the determiner in the ST base appears together with an adjective. In this case the strong morphology is realized on the adjective, and as a result only the uninflected form of the determiner is acceptable.

(26) E gäiss hätt ds Linggi hüür nuch *ekäi**ni** /ekäi bruuni gmullche
*none [STR] /no [–] brown [STR]

Clearly then the strong morphology on the determiner in (25) is not a consequence of the construction, but merely of the environment in which it is found. Moreover the environment relevant for determining the presence vs. absence of the morphology is that of the output, not that of a conjectured input within a movement analysis. The same is true of the realization of morphology on the adjective as well, as I demonstrate below.

In example (27) the ST-head is a bare plural noun phrase, while the ST-base contains the determiner *all* 'all'. Bare plural noun phrases typically require adjectives with strong morphology. The determiner *all* on the other hand always requires adjectives to be in the weak form. As can be seen in the example the adjective morphology is determined locally within each part of the construction.

(27) Ggläsn**i** heftli hätt ds Didi schu alli alt**e** furttue.
read[STR] magazines has Didi already all old [WK] thrown out
'Didi already threw out all the old magazines that had been read.'

In fact there is a contrast in grammaticality between (27) on the one hand and (28) and (29) on the other. The adjective in the ST-head *ggläse(n)-* 'read(past part.)' must show the strong form required in bare plural contexts, rather than the weak form compatible with the determiner in the base. Conversely the adjective in the ST-base *alt-* 'old' must have the form compatible with the base determiner. Using the same morphology as the ST-head adjective leads to ungrammaticality as illustrated in (29).

(28) * Ggläsn**e** heftli hätt ds Didi schu alli alt**e** furttue.
[WK]

(29) * Ggläsn**i** heftli hätt ds Didi schu alli alt**i** furttue.
[STR]

(30) * alli alt**e** ggläsn**i** heftli
old [WK] read [STR]

Finally note that as can be seen in (30) the ST-base and the ST-base of (27) cannot be assembled to a single grammatical noun phrase. The offensive bit is clearly the strong morphology on *ggläse(n)-*.

All of this shows that the type of connectivity exhibited by the construction must be the kind which includes such things as gender and number, but not adjective morphology. This is in fact rather unsurprising since gender, and number are determined by the head noun, and case by the argument position each of which there is only one. The

weak/strong morphology on the other hand is determined by the noun phrase context of which there are two.

These facts are not incompatible with a movement analysis. Still a movement analysis might well have lead us to expect that the two parts of the construction might form a continuous domain for the assignment of weak/strong morphology. The general strategy for dealing with this type of problem is to assume it is handled in the PF component of the grammar.[4]

1.4. Island Effects

Van Riemsdijk's major argument in favor of an account of ST in terms of movement is that ST shows island effects. Example (31) shows that ST is a long distance dependency.

(31) es bild hätt ds Mägdi gmäint as dr miliunär em Kunschthuus
picture has Mägdi thought COMP the millionaire the museum

äis vum Picasso gstiftet heb.]
one of Picasso's donated has
'Mägdi thought that the millionaire had donated one of Picasso's pictures to the museum.'

The contexts that constitute strong islands for extraction typically include relative clauses and adjunct clauses. Both of these lead to robust ungrammaticality when an ST-base is inside such a clause and the ST-head is external.

Example (32) is an example of a relative clause island. In this case the ST-base is inside a relative clause, while the ST-head is in the initial position in the matrix. Such examples are ungrammatical.

(32) * es bild isch dr miliunär gschtoorbe [wo em Kunschthuus
picture is the millionaire died REL-PRN the museum

äis vum Picasso gstiftet hätt.]
one of Picasso's donated has
'The millionaire died who had donated one of Picasso's pictures to the museum.'

[4]This seems to be the type of explanation that van Riemsdijk has in mind. See footnote 5, where he suggests that the gender, number and case agreement be checked before movement, while strong/weak morphology be checked after.

Example (33) illustrates an adjunct island. The adjunct is introduced by *sitt* 'since'. In this case the ST-base is inside the adjunct , while the ST-head is in the main clause. Again such examples lead to ungrammaticality.

(33) * es bild händs ds Kunschthuus zuegmacht [sitt äis vum Picasso
picture have they the museum closed since one of Picasso's

gschtole woorden isch.]
was stolen
'They closed the museum since one of Picasso's pictures was stolen.'

Island effects present a familiar type of argument in favor of movement. The fact that long distance dependencies between ST-head and ST-base are possible, as shown in (31), but that specific examples involving a dependency across an island configuration are ruled out, as seen in (32) and (33), receives an immediate explanation under a movement account.

1.5. Stacking of complement and modifiers

Another property of ST pointed out by van Riemsdijk has to do with the order of complements and modifiers. As was demonstrated above in examples (2) and (3) complements and modifiers may appear either in the ST-head, or the ST-base. As is well known the ordering of these elements is far from free. First, complements must appear inside modifiers. Further even among modifiers certain ordering restrictions apply. The following examples demonstrate this.

(34) es bild vum Matterhore wo käi raame hätt
a picture of the Matterhorn that has no frame

(35) * es bild wo käi raame hätt vum Matterhore
a picture that has no frame of the Matterhorn

(36) es nüüs japanisches auto
a new Japanese car

(37) * es japanisches nüüs auto
a Japanese new car

Examples (34) and (35) demonstrate the ordering restriction between a complement and a modifier. Only (34) where the complement PP is inside the relative clause modifier is grammatical, while (35) with the reverse order is out. Examples (36) and (37) show the ordering restriction between two adjective modifiers. Here only (36) which has the adjective *nüüs* 'new' outside of *japanisches* 'Japanese' is acceptable. The first type of

ordering restriction is usually accounted for in terms of X-bar Theory, but the latter is unexplained. Van Riemsdijk observes that these ordering restrictions must hold even across the two parts of the ST construction. This means that if the ST-base and ST-head each have a complement or modifier, the one that usually appears closer to the head noun must be in the ST-head. Consider the following examples.

In (38) the ST-head appears with a complement PP, while the ST-base appears with a relative clause modifier. This type of distribution is acceptable. However an example with the reverse distribution, illustrated in (39), is seriously degraded.

(38) Es bild vum Matterhore hätt dr This äis wo käi raame hätt
a picture of the Matterhorn has Matthew one that has no frame

i dr stube.
in the living room
'Matthew has a picture of the Matterhorn without a frame in his living room.'

(39) ?? Es bild wo käi raame hätt hätt dr This äis vum Matterhore
a picture that has no frame has Matthew one of the Matterhorn

i dr stube.
in the living room
'Matthew has a picture of the Matterhorn without a frame in his living room.'

The contrast between (38) and (39) directly parallels that between (34) and (35). The same kind of contrast can also be seen with adjective modifiers as seen in the following examples:

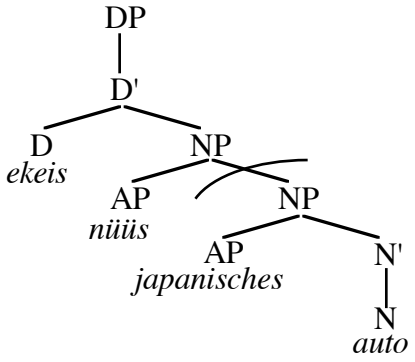
(40) Es japanisches auto cha sich ds Mägdi ekäis nüüs läischte.
a Japanese car can self Mägdi none new afford
'Mägdi can't afford a new Japanese car for herself.'

(41) ?? Es nüüs auto cha sich ds Mägdi ekäis japanisches läischte.
a new car can self Mägdi none Japanese afford
'Mägdi can't afford a new Japanese car for herself.'

In example (40) the adjective that appears in the ST-head is *japanisches* and the one that appears in the ST-base is *nüüs*. Since of these two *japanisches* is the one that should appear closer to the noun this distribution is okay and sentence (40) is grammatical. The reverse distribution again leads to a degradation as can be seen in (41). Again the contrast between sentences (40) and (41) is parallel to that between (36) and (37).

Under a movement account the unacceptability of (41) follows directly from the ungrammaticality of (37). This is so because (37) would have to serve as the d-structure for (41).This can be seen clearly if we look at the structure assigned to (37).

(42)



Assuming a DP analysis for noun phrases the structure for (37) would be as seen in (42). Given this structure it can be seen right away that the movement analysis predicts that only certain types of ST-heads should be possible. In particular an ST-head *japanisches auto*, stranding *ekeis nüüs* is possible, while an ST-head *nüüs auto* with *ekeis japanisches* left in the base position will be out. This is exactly the contrast of (40) versus (41).

A possible weakness of this argument is that there is no account of the stacking order of modifiers. Since the account of these restrictions is likely to be a semantic one, it might well hold of two noun phrase in a chain relation as well. Under such a scenario this argument would cease to be an argument in favor of the movement account, and instead would merely be a neutral point.

1.6. Van Riemsdijk's N-bar movement analysis, with 'regeneration'

In order to account for the connectivity facts van Riemsdijk proposes that ST is derived by movement. In order for such an account to even get of the ground, it must somehow account for the determiner overlap problem. Recall sentence (1), repeated here for convenience:

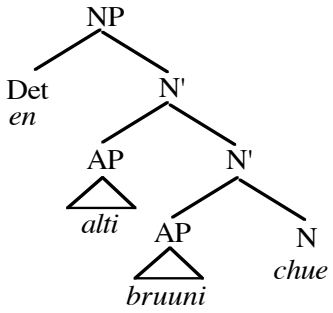
(1) **E** chue hätt dr Sepp **ekäini** gchaufft.
a cow has Sepp none bought
'As for cows, Sepp didn't buy any (at least).'

As was already noted the most immediate problem for a movement analysis is the fact that there are two determiners. As a consequence there is no obvious d-structure for the sentence either. In order to account for this situation van Riemsdijk proposes that

structure is 'regenerated', and that the extra determiner is the result of 'relexicalization', i.e. insertion of a lexical element during the derivation.

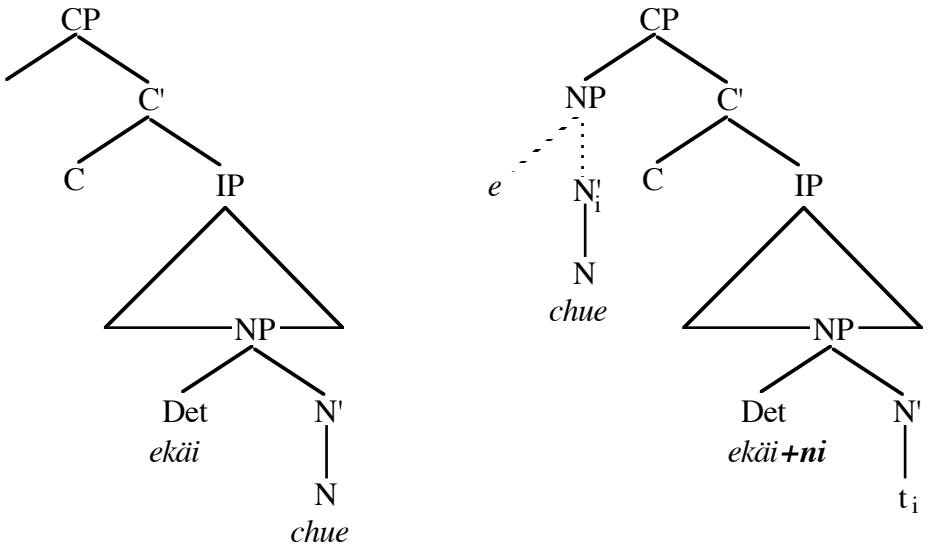
Van Riemsdijk's analysis crucially relies on a specific type of structure for noun phrases. The determiner, and all the AP modifiers are successively adjoined to the head noun. The intermediate adjunction sites are N', and only the topmost projection of N is of type N^{max} (= NP). An example is shown in (43).

(43) proposed structure for *en alti bruuni chue* 'an old brown cow'



Since ST separates this structure at one of the intermediate nodes it is a case of N' movement. Adopting the common assumption that movement is limited to either heads or phrasal categories, this type of movement should be ruled out. Instead van Riemsdijk argues that the reason that such movement is generally prohibited is that the outcome would violate X-bar principles. This is because the moved constituent would no longer be of type X^{max}. Van Riemsdijk proposes that such movement becomes possible if the language employs the marked option of 'regeneration'. Regeneration is the process whereby an incomplete projection, i.e. a projection of type X', adds further structure in order to become complete, i.e. of type X^{max}. In dialects such as GT, this regenerated structure can even be 'relexicalized'. Van Riemsdijk proposes that the agreement features of the moved N' constituent are realized in the regenerated structure in the form of the indefinite determiner. This insertion of lexical material during the derivation is the source of the determiner overlap. A derivation for sentence (1) would look as follows:

(44) d-structure s-structure



As seen in (44) on the left, the two parts of the split topic start out together as a single NP. Movement of the intermediate bar-level constituent to the Spec of CP would violate X-bar principles since the output would leave a non-phrasal category in the spec of CP. This triggers regeneration of a maximal projection for the moved N'. The regenerated structure is in turn relexicalized as an indefinite determiner.

This account crucially relies on the specific type of noun phrase structure shown in (43). In particular it relies on the assumptions (i) that determiners are specifiers of NP, and (ii) that the level at which AP adjoins is not NP. Both of these assumptions are crucial since without them the justification for regeneration is lost.

1.7. DP/NP analysis, with NP movement (Tappe 1989)

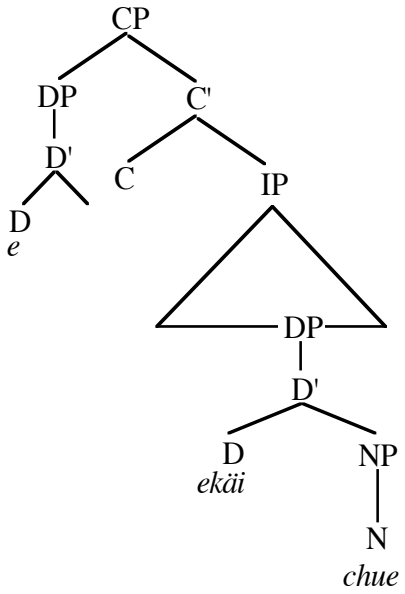
A problem with van Riemsdijk's proposal is pointed out in Tappe (1989). Van Riemsdijk's analysis would lead one to expect that the determiner that can appear in the regenerated position is restricted to the simple indefinite. This is because, under his analysis, the insertion happens automatically during the course of the derivation. Tappe notes however that there is another determiner, *sone* 'such a', that can appear in this position.

(45) Sone schwiiordnig hätt üüs dr Melgg nuch nie äini aagräiset.
such a mess has us Melchior never yet one prepared
'Melchior has never left us such a mess before.'

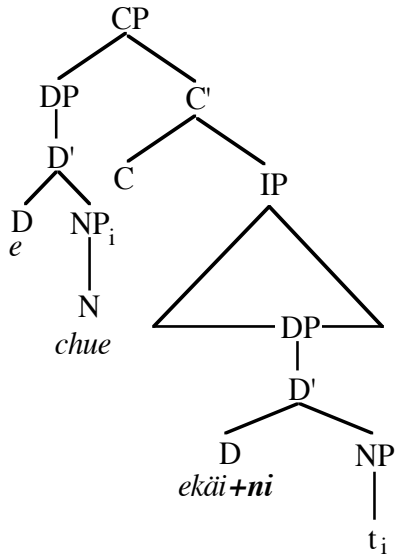
Tappe further criticizes van Riemsdijk's analysis for its reliance on an NP structure for noun phrases. He has independent reasons for preferring the DP structure for German noun phrases, and therefore recasts the movement analysis in terms of the DP hypothesis.

Under his proposal the determiner of the ST-head, either the indefinite article or the such-type determiner, is base generated as a DP without a complement, and the NP from the ST-base undergoes movement to the complement of DP position. It is completely unclear however, how such an account can be reconciled with the Projection Principle.

(46) d-structure



s-structure



This account will still need to permit N' movement since the ST-base can contain a complement as can be seen in example (47) (cf. also van Riemsdijk). If we are to maintain both the assumption that complements to N are daughters of N', and the account of ST in terms of movement, then the fact the head noun can move away stranding its complement will lead us to the conclusion that ST requires N' movement.

(47) Es bild hätt dr This äis vum Matterhore i dr stube.
a picture has Matthew one of the Matterhorn in the living room
'Matthew has a picture of the Matterhorn without a frame in his living room.'

2. New data or results from theory

2.1. Interaction of ST with word order

A point that is hardly discussed, but is implicit in all the work on ST, is that the position of both the ST-head and the ST-base is tightly restricted. This is an interesting point since generally the position of noun phrases is quite free in German. ST-heads and ST-bases are in marked contrast to this usual behavior. In order to make this point clear I will first demonstrate the free distribution of noun phrases. As a simple illustration consider the following case:

(48) Es hätt dä schu en experte dr töff gfligget.
it has definitely an expert the motorcycle fixed
'An expert definitely fixed the motorcycle.'

Example (48) consists of a single clause with two argument noun phrases: the subject *en experte* 'an expert', and an object *ds töff* 'the motorcycle'. There are a few things about the word order in such clauses that are fixed. First of all the inflected verb *hätt* must always be in second position with only a single constituent preceding it. This requirement is so strict that in case there isn't already some element in that position, an expletive is inserted. This can be seen in (48), where the neuter singular pronoun *es* acts as expletive.

Aside from the position of the inflected verb the following must also hold: the non-finite verb *gfligget* 'fixed' must follow all noun arguments[5], and the adverb *dä schu* 'definitely' must be located between the two verbs. Given these facts, we find that the relative ordering of these three elements is fixed as: *… hätt … dä schu … gfligget*. Allowing for the restrictions that at most one constituent can precede *hätt,* and that nothing may follow *gfligget,* completely free insertion of the two noun phrases predicts 10 possible orderings. In addition to the one in (48), examples in (49) and (50) show that virtually all of these are in fact attested.

(49) a. Es hätt en experte dä schu dr töff gfligget.
b. Es hätt dr töff dä schu en experte gfligget.
c. Es hätt en experte dr töff dä schu gfligget.
d. En experte hätt dr töff dä schu gfligget.
e. En experte hätt dä schu dr töff gfligget.
f. Dr töff hätt en experte dä schu gfligget.
g. Dr töff hätt dä schu en experte gfligget.

(50) a. * Es hätt dä schu dr töff en experte gfligget.
b. * Es hätt dr töff en experte dä schu gfligget.

An account of these ordering possibilities is given in Webelhuth (1989). Building on work by Lenerz (1977), Webelhuth suggests that the order in (48) is the basic one and that the others are achieved through movement of the noun phrases, in an operation called scrambling. The point that is important to the discussion here is that movement of noun phrases in German can target sentence internal positions, as well as the sentence initial position.

[5]An exception to this is a certain type of construction where the non-finite verb is itself in sentence initial position. We can ignore such constructions here.

2.1.1. Position of ST-head restricted to Initial Field

Given the free positioning possibilities of noun phrases generally, we might expect the same to hold of the ST-head. But this is not the case. As was mentioned already at the beginning of this paper the ST-head must be in the sentence initial position. This is so even though other positions are possible targets for moved noun phrases. The following example demonstrates this positional restriction on the ST-head.

(51) * dr Sepp hätt **e chue** (dä schu) ekäini gchaufft.
Sepp has a cow (really) none bought

In (51) the ST-head *e chue* is in a scrambled position sentence internally, rather than in the initial position. The resulting sentence is ungrammatical. Since movement of argument noun phrases can target both sentence initial positions and sentence internal ones, one would expect that movement of ST-heads should be able to target either type of position as well. Thus an unadorned movement analysis of ST would not predict this restriction. Instead the explanation must have to do with the topic nature of the construction. Topics are commonly restricted to sentence initial position (cf. Aissen 1992).

A point to note here is that ST contrasts in this respect with a superficially similar construction known as quantifier float. Quantifier float also involves a noun phrase that is separated from its determiner. The similarities end there. The only determiner that can be stranded in this construction is *all* 'all'. The noun phrase separated off from the determiner is always definite. A typical example is given in (52).

(52) **D chüe** hätt dr Sepp (dä schu) **alli** verchaufft.
the cows has Sepp (really) all sold
'Sepp (really) sold all the cows.'

A further contrast between quantifier float and ST is that the former permits the noun phrase containing the head noun to appear in positions other than the sentence initial one. Witness (53) which contrasts minimally with (27).

(53) Dr Sepp hätt **d chüe** (dä schu) alli verchaufft.
Sepp has the cows (really) all sold

An analysis of quantifier float in terms of movement is firmly established. Under that view the noun phrase *d chüe* 'the cows' in (52) has been moved away from its base generated position next to *alli,* to the sentence initial position. As a movement account might lead us to expect, (53) simply represents a case where a sentence internal position has been chosen as the target for the moved noun phrase.

A consequence of the positional restriction on the ST-head is that ST is limited to root clauses[6] . This is because in embedded the sentence initial position is already occupied by a and is therefore not available for an ST-head. Also, since there cannot be more than one constituent in the sentence initial position, there can also not be more than one occurrence of ST per clause.

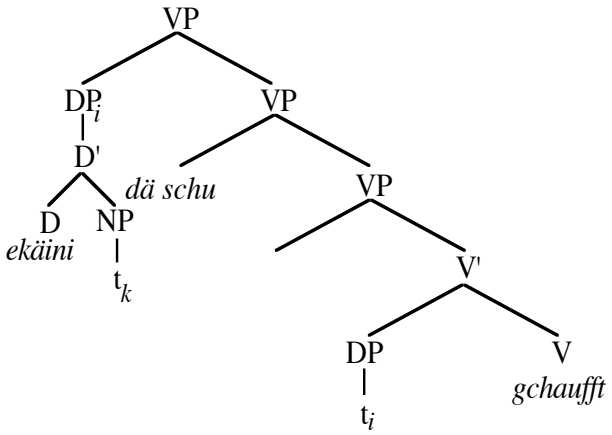
2.1.2. ST-base restricted from scrambled positions

If we take the position of a noun phrase relative to the sentential adverb to be indicative of whether it is in its base generated position or not, then we find that the ST-base is restricted to its base generated position within the VP[7]. This can be shown through an example like (54). In (54) the placement of the ST-base *ekäini* to the left of the sentential adverb *dä schu* indicates that it is not in its base position . The result is ungrammatical.

(54) * e chue hätt dr Sepp **ekäini** dä schu gchaufft.
a cow has Sepp none really bought

A movement analysis of ST might provide us with an account of this restriction along the following lines. If the trace of the moved phrase needs to be governed by the verb *gchaufft* 'bought' then scrambling the noun phrase containing the trace would arguably remove the trace from the domain governed by the verb. The situation is illustrated in the following diagram.

(55)



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[6] ST seems to be possible in embedded V2 clauses as well, as shown by (i):

(i) Dr Sepphätt gsäit [$_{CP}$ chüe heb er ekäi gchaufft].
Sepp has said cows have-SUBJUNC he none bought
'Sepp said that cows he didn't buy any.'

[7]This type of test is familiar from a number of sources. See Pollock (1989), Diesing (1990) and Webelhuth (1989).

In the diagram (55) t_k represents the trace left by the ST-head under a movement account of ST. This trace is arguably not governed by the verb. In order to make such an account go through we will also need to assume that the D *ekäini* cannot serve as governor for the NP trace.

2.2. Specificity relationship between ST-head and ST-base

There is some evidence to show that the ST-head must be no more specific than the ST-base. Consider examples (56) and (57):

(56) (?) Fisch hätt ds Leni zwii forälle ggässe.
fish has Leni two trout eaten
'As for fish, Leni ate two trout.'

(57) (?) Es auto vermag ds Babett nu grad en döösch woo.
a car can-afford Babett only just a Citroën 2CV
'As a car, Babett can only just afford a 2CV.'

Examples (56) and (57) have relatively non-specific noun phrases as ST-heads, but more specific noun phrases as ST-bases. In (56) the ST-head *fisch* 'fish' is less specific than the ST-base *forälle* 'trout', and in (57) the less specific noun phrase *es auto* 'a car' forms the ST-head, while the more specific noun phrase *en döösch woo* 'a Citroën 2CV' makes up the ST-base. Although these examples are slightly awkward, there is a marked contrast between such examples and the minimally different examples (58) and (59). The latter are robustly ungrammatical.

(58) * Forälle hätt ds Leni zwii fisch ggässe.
trout has Leni two fish eaten

(59) * En döösch woo vermag ds Babett nu grad es auto.
a Citroën 2CV can-afford Babett only just a car

In (58) and (59) the noun phrases that make up the ST-head and the ST-base in (56) and (57) have been switched, so that the more specific one is in the ST-head position, while the less specific one is in the ST-base. This leads to a notable drop in acceptability, compared with (56) and (57). This contrasts suggests that ST is only acceptable if the less specific noun phrase is the ST-head, while the more specific noun phrase forms the ST-base.

This effect would not follow from anything under a movement account of ST. In fact a movement account would predict that (56) and (57) should not be possible at all. According to the gap effect the ST-base should not be able to contain an overt noun

phrase. Van Riemsdijk bases his argument for a gap effect in ST on examples like (60) (parallel to 7).

(60) ?* Es auto vermag ds Babett ekäi döösch woo.
a car can-afford Babett no Citroën 2CV

This type of example is indeed much worse than (57) above, but since there is a contrast it seems that we cannot attribute the badness of (60) solely to the gap effect., and must therefore seek some alternate explanation. The obvious difference between (57) and (60) is the presence of negation. If negation is responsible for the ungrammaticality of (60) we might question whether there is any need for appealing to a supposed gap effect. Since van Riemsdijk claims that the gap effect makes topicalization in German different from the corresponding construction in other languages, i.e. Japanese and Chinese, it is worth reviewing his discussion.

Japanese permits rather freely constructions with a topic phrase that cannot be assigned an argument position. Such topics appear sentence initially, are marked with the particle *-wa,* and serve as antecedent to another noun phrase in argument position. In the following examples, taken from van Riemsdijk, *kudamono* 'fruit' in (61) cannot be an argument of the predicate *kaimasita* 'bought', and *hon* 'book(s)' in (62) does not have an argument position available either.

(61) Kudamono-wa ringo-o kaimasita
fruit apples bought
'As for fruit, I bought apples.'

(62) Hon-wa [syoosetu sika yoma nai] hito-wa baka da
books novels only read NEG person stupid COPULA
'As for books, a person who reads only novels is stupid.'

In both (61) and (62) the topic phrase cannot have originated from a sentence internal argument position, since there is no gap. The most likely gap is already filled by a noun phrase. We might call such a situation, where two noun phrases are linked to the same argument position 'radical overlap'. The radical overlap seen in Japanese is usually taken to mean that the topics in these sentences are base generated, sentence initially. Van Riemsdijk argues that radical overlap is not possible in German, and that as a result German topicalization (including ST) is fundamentally different from topicalization in Japanese. The contrast in grammaticality between (60) and (61/2) is supposed to show this. However neither of the Japanese examples contains a negation. As it turns out

examples containing negation are no more acceptable in Japanese than they are in German.[8]

(63) * Kudamono-wa ringo-o kaimasen desita
fruit apples bought-NEG COPULA
'As for fruit, I bought no (didn't buy) apples.'

(64) * Hon-wa [syoosetu-o yoma nai] hito-wa baka da
books novels read NEG person stupid COPULA
'As for books, a person who reads no (doesn't read) novels is stupid.'

Examples (63) and (64) are exactly parallel to (61) and (62) except that the noun phrase for which the topic serves as antecedent is inside a clause containing a negation. The result is ungrammatical. The ungrammaticality of (63) and (64) cannot be pinned on an overlap problem since Japanese is argued not to have such a restriction. Nevertheless examples parallel to (63) and (64), that have a gap are fine, as can be seen in (65) and (66).

(65) Kudamono-wa kaimasen desita
fruit bought-NEG COPULA
'As for fruit, I bought didn't buy any.'

(66) Hon-wa [yoma nai] hito-wa baka da
books read NEG person stupid COPULA
'As for books, a person who doesn't read (them) is stupid.'

Summarizing the discussion on Japanese we saw that Japanese permits topicalization with radical overlap, but that this type of topicalization is sensitive to negation. This means that whatever causes the Japanese examples with negation to be ruled out might also be used to explain why German examples like (60) are bad. This in turn would mean that (60) does not by itself argue that German disallows radical overlap. On the contrary examples such as (56) and (57) seem to suggest that German permits radical overlap, even if the result is not as fully acceptable as the corresponding Japanese examples.

Returning to the starting point of this discussion we note that in Japanese topicalization too, the relation between the noun phrase in topic position and the one in argument position is that of less specific to more specific, just as in the ST construction. It seems that this property should be a consequence of the construction being a form of topicalization.

[8]Japanese does not have anything that could be called a negative determiner. Instead the negation is marked on the verb.

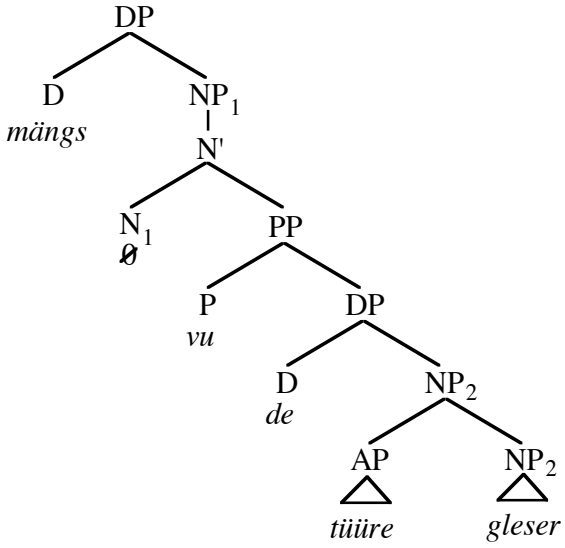
2.3. ST and the partitive construction

Putting aside the cases involving radical overlap we can describe 'canonical' ST as a construction involving a noun phrase that is antecedent to another noun phrase consisting of a determiner and a null head. This is reminiscent of the partitive construction illustrated in (67). A point of similarity between this construction and the split topic construction is that both contain a determiner without an adjacent NP. For example in (67) the determiner *mängs* should normally be immediately followed by an NP. Instead it is followed by a PP headed by the preposition *vu* 'of'.

(67) Es isch schu mängs vu de tüüre gleser verhiit.
It are already many of the expensive glasses broken
'Many of the expensive glasses have already broken.'

Following Jackendoff (1977) this type of construction can be analyzed as involving an empty head noun. If we transpose the structure proposed by Jackendoff for such constructions into a model that adopts the DP Hypothesis, the resulting structure will be as shown in (68).

(68)



In order to be able to talk about the NPs in the construction I will call the top one, the one marked N51, the unit phrase, and the lower one, designated N54, the restricting phrase. In a partitive the missing unit phrase is licensed in some sense by the presence of the following restricting phrase. This must be so since in general there can be no NP anaphora without some antecedent. But this is exactly what is possible with the partitive construction. It seems then that the restricting phrase can act as the antecedent for the missing NP. This makes partitives somewhat unusual since the antecedent is lower than

and does not c-command the anaphora. One might call the partitive an 'upside-down dependency'.

2.3.1. Interaction of ST with the partitive

This construction then gives us a tool for probing the nature of the connectivity relation in the ST construction. Consider what happens when we combine ST with a partitive NP as the ST-base. An example is given in (69).

(69) Gleser sind schu vill vu de tüüre verhiit.
glasses [PL] are already many [PL] of the expensive [PL] broken
'Many of the glasses have already been broken.'

In such an example there are two noun heads missing in the ST-base, the head noun of the unit phrase and the head noun of the restricting phrase. This means that there are two slots that the ST-head *gleser* 'glasses' might be connected to. Since the unit phrase seems to be dependent on the restricting phrase in the PP, it would seem plausible that the ST-head might be anaphoric to the head noun in the restricting phrase. Further support for this idea comes from the fact that it is not possible to have the head noun of the unit phrase filled in a regular partitive construction as shown in (70).

(70) *? Es sind schu vill gleser vu de tüüre verhiit.
it are already many glasses of the expensive broken
'Many of the glasses have already been broken.'

The connectivity facts as demonstrated by agreement however lead to the opposite conclusion. In examples where the two NPs differ in number, the ST-head must share the number agreement with the unit phrase, not with the restricting phrase. So in (71) the determiner in the unit phrase *mängs* requires singular agreement, while the determiner in the restricting phrase is plural. As can be seen in (71) and (72), the ST-head must be singular, in agreement with the unit phrase, while a plural ST-head, agreeing with the restricting phrase, is impossible. A second example of this type is shown in (73-74).

(71) Es glaas isch schu mängs vu de tüüre verhiit.
a glass [SG] many [SG]

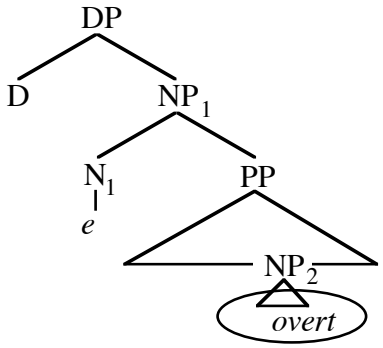
(72) * Gleser sind schu mängs vu de tüüre verhiit.
glasses [PL] many [SG]

(73) Es herrehämp hätt dr Schaagg äis vu de blaue uuni chrage gchaufft.
a men's shirt [SG] has Jack one [SG] of the blue [PL] without collar bought
'Jack bought one of the blue men's shirt without a collar.'

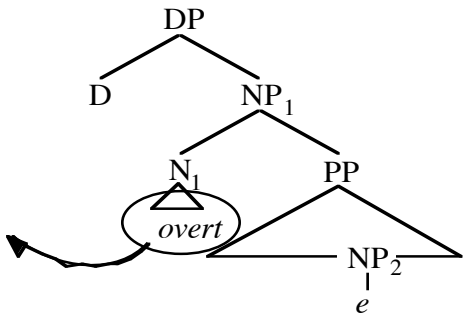
(74) * Herrehämper hätt dr Schaagg äis vu de blaue uuni chrage gchaufft.
men's shirts [PL] one [SG] of the blue [PL]

The interesting property is that although in a standard partitive it is the restricting phrase that needs to be overt and the unit phrase absent, once the partitive interacts with ST the situation is reversed. This situation is illustrated in (75).

(75) simple partitive



ST partitive



2.3.2. Interaction of specificity with partitive

In general in the partitive construction, it is ungrammatical or awkward for both NPs to be overtly realized. As the contrast between (59) and (70) above demonstrated it is the unit phrase which is not overt, and anaphoric to the other. Even though generally only the restricting phrase is overtly realized it is possible on the basis of contrasts like the following to argue that the unit phrase must be more specific than the restricting phrase.

(76) ? en pudel vu de hünd
a poodle of the dogs

(77) ?* en hund vu de pudel
a dog of the poodles

Now returning to the interaction of ST with the partitive, realizing NPs in both the ST-head and the restricting phrase leads to the following contrasts.

(78) ?* En pudel isch äine vu de hünd ab.
a poodle is one of the dogs off
'A poodle of the dogs ran away.'

(79) ? En hund isch äine vu de pudel ab.
a dog is one of the poodles off
'As for dogs, one of the poodles ran away.'

(80) ?* Giiger sind espaar vu de musiker uff Praag gu es kunzärt gii.
violinists are a couple of the musicians to Prag go a concert give
'Some violinists of the musicians went to give a concert in Prag.'

(81) ? Musiker sind espaar vu de giiger uff Praag gu es kunzärt gii.
musicians are a couple of the violinists to Prag go a concert give
'Some violinists of the musicians went to give a concert in Prag.'

As these examples show the sentences are acceptable just in case the restricting phrase is more specific than the noun phrase that constitutes the ST-head. Under a movement analysis, the ST-head *is* the ST-base, since it started out as such and reached its position through movement. At the same time the ST-base is the unit phrase of the partitive construction, and by the prior reasoning it was determined that the unit phrase was more specific than the restricting phrase. It follows that the ST-head should be *more* specific than the restricting phrase. This leads to a contradiction. In order to avoid this unfortunate conclusion, it seems we must give up the assumption that ST is derived by movement.

3. Some further features of ST

3.1. Dialect Variation

Van Riemsdijk observes that although ST is available in most varieties of German, the extent to which it is available varies according to the type of noun phrase that can appear in the ST-head. Van Riemsdijk distinguishes three varieties.

The first variety permits only ST-heads such as those in (82) and (83). Example (82) has a bare plural noun phrase as the ST-head, and (83) has a mass noun. What typifies this dialect is that the ST-heads consist of exactly the type of noun phrases that can appear without a determiner. As a result, in this variety of German the determiner overlap problem never arises, and a movement account of the data looks quite plausible.

(82) Chüe hätt dr Sepp ekäi gchaufft.
cows [PLUR] has Sepp none bought
'Sepp didn't buy any cows.'

(83) Wii hätt dr Sepp ekäi gchaufft.
wine [SING]
'Sepp didn't buy any wine.'

The second variety is more permissible in the sense that, in addition to bare plural and mass noun ST-heads, it also permits singular nouns with an indefinite article, as shown in (84). The extra determiner in (84) leads to the determiner overlap problem.

(84) E chue hätt dr Sepp ekäini gchaufft.
a cow [SING]
'Sepp didn't buy a cow.'

The third dialect described by van Riemsdijk permits all of the above possibilities. In addition it also permits the type of ST-head shown in (85). In (85) the ST-head is a singular count noun, but the noun appears without the indefinite article, or any other determiner. This type of noun phrase is not a permissible noun phrase in any other context.

(85) Chue hätt dr Sepp ekäini gchaufft.
cow [SING]
'Sepp didn't buy a cow.'

This variation is summarized in the following table:

(86)

	no ST	var. 1	var. 2	var. 3
bare plural nouns	*			
mass nouns	*			
singular count noun with article	*	*		
singular count noun w/o article	*	*	*	

In light of his movement account van Riemsdijk proposes to handle this variation with an account in terms of parameters. The distinction between dialects with ST and those without is the result of a parameter permitting regeneration. The difference between dialect 1 on the one hand, and dialects 2 and 3 on the other, is handled through a parameter that allows or disallows relexicalization, i.e. the inserting of lexical material during the derivation. Some further parameter would be needed to distinguish dialects 2 and 3. The plausibility of this analysis would depend on some further motivation for the existence of these parameters, a motivation that seems lacking at the moment.

A further fact that affects the typology presented by van Riemsdijk is the type of example shown in (87). This kind of example was first noted by Tappe (1989).

(87) Sone chue hätt dr Sepp ekäini gchaufft.
such a cow [SING]
'Sepp didn't buy such a cow.'

In example (87) the ST-head consists of a noun phrase with the determiner *sone* 'such a'. This determiner can only appear with singular count nouns, and is therefore presumably only available in dialects 2 and 3. The fact that there are two different determiners available with singular count nouns makes it seem less likely that they are

inserted during the derivation. A problem for any analysis however is to explain why these two determiners are the only ones available in the construction.

3.2. VP as ST-heads

Finally a serious problem for any analysis in terms of movement is that the ST-head noun can be the object of a topicalized VP. VPs are included among the possible constituents that can occupy the initial position in German. If the VP in that position contains an object noun, that noun can function as an ST-head. Example (88) demonstrates the case of a VP with a single object acting as ST-head, while (89) and (90) are ditransitive examples.

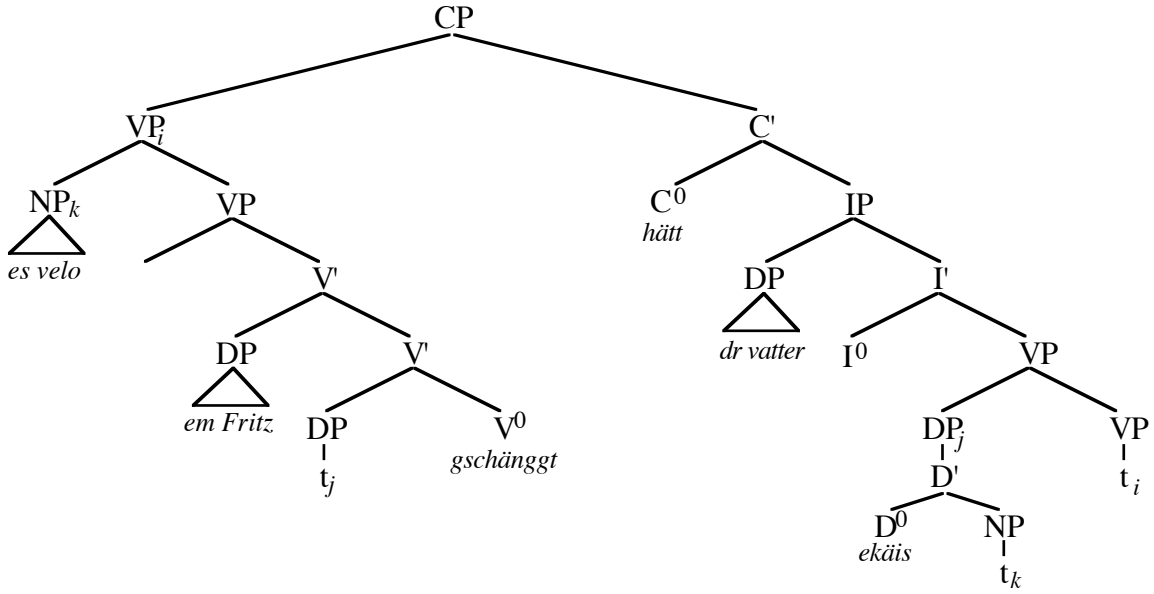
(88) [$_{VP}$ E schwiiordnig aagräiset] hätt üüs dr Melgg gad e raari.
a mess prepared has us Melchior quite a rare
'As for leaving a mess, Melchior left us quite an unusual one.'

(89) [$_{VP}$ Em Fritz es velo gschänggt] hätt dr vatter ekäis.
to Fritz a bicycle made a gifthas father none
'As for giving Fritz a bicycle, father didn't give him one.'

(90) [$_{VP}$ Es velo em Fritz gschänggt] hätt dr vatter ekäis.
a bicycle to Fritz made a gifthas father none
'As for giving Fritz a bicycle, father didn't give him one.'

The structure for (90) required by a movement analysis runs into a number of problems. Putting aside certain obvious difficulties such as the determiner overlap the necessary structure will look something like that in (91) (cf. Tappe 1989).

(91) possible structure for (90) under a movement analysis



There are quite a number of problems involved in deriving (90) as in (91). As is stands the deep structure would have to be as in (92):

(92) [$_{CP}$ _ hätt dr vatter [$_{VP}$ em Fritz [$_{DP}$ ekäis velo] gschänggt]]

As a first step *velo* 'bicycle' would have to be moved out of its DP away from the determiner and adjoined to the VP, giving the structure in (93):

(93) [$_{CP}$ _ hätt dr vatter [$_{VP}$ velo$_k$ [$_{VP}$ em Fritz [$_{DP}$ ekäis t$_k$] gschänggt]]]

Note that this step was argued earlier (in section 2.1.1.) not to be permissible on its own. Note further that topicalization of either of the two VPs at this point will result in an ungrammatical sentence:

(94) * [$_{CP}$ [$_{VP}$ em Fritz [$_{DP}$ ekäis t$_k$] gschänggt $_{VP}$]$_i$ hätt dr vatter [$_{VP}$ (es) velo$_k$ t$_i$]]
(95) * [$_{CP}$ [$_{VP}$ (es) velo$_k$ [$_{VP}$ em Fritz [$_{DP}$ ekäis t$_k$] gschänggt]]$_i$ hätt dr vatter t$_i$]

The next step will require us to adjoin the DP containing the determiner to the VP in order to 'get it out of the way.'

(96) [$_{CP}$ _ hätt dr vatter [$_{VP}$ [$_{DP}$ ekäis t$_k$]$_j$ [$_{VP}$ velo$_k$ [$_{VP}$ em Fritz t$_j$ gschänggt]]]]

This step encounters even more obstacles. The trace t$_k$ inside the newly preposed DP is now no longer c-commanded by its antecedent *velo*. Also the movement of the DP across the NP *velo* should presumably incur a weak crossover violation, since the DP contains a trace coindexed with *velo*. Again the output is not a grammatical structure without further movement. Finally note again that the structure contains 3 VPs, of which

only the middle one can be targeted to give a grammatical outcome. Examples (97) and (98) demonstrate the ungrammatical alternatives of the desired outcome shown in (99).

(97) * $[_{CP}\ [_{VP}\ [_{DP}$ ekäis $t_k\ ]_j\ [_{VP}$ *es* velo$_k$ $[_{VP}$ em Fritz t_j gschänggt$]]]_i$ hätt dr vatter $t_i\ ]$

(98) * $[_{CP}\ [_{VP}$ em Fritz t_j gschänggt$]_i$ hätt dr vatter $[_{VP}\ [_{DP}$ ekäis $t_k\ ]_j\ [_{VP}$ *es* velo$_k$ $t_i\ ]]]$

(99) $[_{CP}\ [_{VP}$ *es* velo$_k$ $[_{VP}$ em Fritz t_j gschänggt$]]_i$ hätt dr vatter $[_{VP}\ [_{DP}$ ekäis $t_k\ ]_j$ $t_i\ ]]$

Note that (99) again compounds the trace c-command and weak crossover problems with the movement of the VP containing the trace t_j across the ST-base DP.

Aside from the many technical problems the movement presents there is also data that suggests that this derivation is problematic. As I pointed out in the section on word order (2.1.) the placement of the arguments relative to certain adverbs indicates whether the argument is in its base position or whether it has been scrambled. In particular consider the following subset of the data repeated from (48-50).

(100)a.		Es	hätt		dä schu	en experte	dr töff	gfligget.
b.		Es	hätt	dr töff	dä schu	en experte		gfligget.
c.	*	Es	hätt		dä schu	dr töff	en experte	gfligget.
		it	has		really			fixed

Example (100a) represents the base order of the arguments, as indicated by the fact that they are all to the right of the sentential adverb. Example (100b) shows the situation where the object *dr töff* 'the motorcycle' has been scrambled out of its base position inside the VP. As this case shows *dr töff* must appear to the left of the adverb *dä schu* when it is scrambled. As (100c) demonstrates moving the object across the subject *en experte* 'an expert', but to the right of the adverb is not possible.

Recall now that the derivation of (91) above required the ST-base to be scrambled out of the VP in order for the VP to be in a position where it could be topicalized. This means that we should expect the ST-base in such examples to be in a scrambled position, and as a result we would expect that they should appear to the left of the sentential adverb. However this prediction is not borne out as can be seen in examples (101) and (102).

(101) $[_{VP}$ Es velo em Fritz gschänggt] hätt dr vatter **dä schu** ekäis.

(102) * $[_{VP}$ Es velo em Fritz gschänggt] hätt dr vatter ekäis **dä schu**.

If the accuracy of the sentential adverb test is to be maintained it becomes even less clear how to derive (90).

4. Conclusion

In this paper I have reviewed a number of properties of the Split Topic construction in German with a particular eye towards to what extent these properties support an account in terms of movement.

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