

The grammar-pragmatics interface and the German prefield

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Abstract

The paper claims that in the left periphery of the German clause structure there exists an \bar{A} -projection KontrastP, thereby arguing that, in German, contrast constitutes an autonomous concept of information structure. Furthermore, it is argued that this is the only “pragmatically relevant” \bar{A} -projection in the German clause. Alternative information-structural properties (other than contrastiveness) that an element in the prefield (i.e. in the first position in a V2-clause) may show are properties which are either licensed in the base position or which are checked by A-movement (scrambling). The second way to fill the German prefield is supplied by a process originally proposed for Kashmiri (Bhatt 1999), which moves the highest constituent of the middle field, preserving whatever pragmatic property the constituent has “acquired” in the middle field (cf. Fanselow 2002). The third mechanism for filling the prefield is constituted by the possibility of base-generation of certain elements that are not to be licensed clause-internally.

Among other things, the proposal explains why topics situated in the local prefield may be non-contrastive, whereas long distant moved topics are necessarily contrastive, why narrowly focused elements positioned in the prefield require other contexts than do those which remain in situ, and why elements which cannot be scrambled are contrastively focused if occurring in the prefield.

It is proposed that the left periphery of the German clause is composed of different functional projections. This permits an account of the fact that long movement may target a position right-adjacent to a complementizer.

1. Introduction

In German, in an independent declarative clause the finite verb is in second position following the “prefield,” as the first position in a V-second clause (V2-clause) is traditionally called. In a finite clause introduced by a complementizer or in a non-finite clause, all verbal elements occur at the end of the clause. Until recently, it was standard in generative syntax to assume that the position of the finite verb in a V2-clause and the position of a com-

plementizer in a verb-final clause are one and the same, the C-position. The part of the clause that is between the position of the finite verb/the complementizer and the verbal elements at the end is traditionally called the “middle field.”

- (1) a. *Den Hans wird Maria morgen treffen*
 the^{ACC} Hans will Mary tomorrow meet
 PREFIELD VFIN MIDDLE FIELD VERB. ELEM.
 ‘Tomorrow Mary will meet Hans’
- b. *dass Maria morgen den Hans treffen wird*
 that Maria tomorrow the^{ACC} Hans meet will
 MIDDLE FIELD VERB. ELEM.
 ‘that tomorrow Mary will meet Hans’

According to the standard assumption in generative syntax, the prefield is reconstructed as a derived position, i.e. no element is base-generated in the prefield. The prefield is represented as the specifier position of CP (SpecCP). Thus, in a V2-clause, SpecCP has to be filled (i.e. “C carries an EPP feature,” as the current terminology expresses this requirement). It is the target of \bar{A} -movement. This movement may not only target the local prefield, as in (1’a), but it may also be long distant, as in (1’b).¹ Furthermore, it is assumed that the right-peripheral position which the verb occupies in embedded clauses is its base position. Moving the finite verb to the empty C slot derives the position of the finite verb in the V2-clause:

- (1’) a. [_{CP} Den Hans₁ [[_C wird₂] [_{IP} Maria t₁ morgen treffen t₂]]]
 b. [_{CP} Den Hans₁ [[_C hat₂] [_{IP} Karl [_{CP} dass Maria t₁ morgen treffen wird] behauptet t₂]]]

In the Minimalist Program, movement is supposed to take place to satisfy certain interface requirements. For left peripheral \bar{A} -movement the interface involved is thought to be the external interface with semantics/pragmatics (cf. e.g. Rizzi 2004). Therefore, a natural question to ask is which discourse function(s) the phrases positioned in the prefield have.

Lötscher (1984) summarizes the functions given in textbooks on German grammar as follows:

- (2) In the prefield, one finds sentence constituents:
 – that denote something that is already known to the hearer,

- that connect the clause to the preceding discourse,
- that should be especially highlighted because they denote something important or new to the hearer.

Let us see whether this characterization is appropriate. The examples in (3) illustrate how diverse the information-structural status of constituents in the prefield can be:

- (3) a. (*Ich erzähle dir etwas über Hans.*)
 I tell you something about Hans
Den Hans wird eine polnische Gräfin heiraten
 the^{ACC}Hans will a polish countess marry
- b. *Dem Hans hat Maria nicht geholfen,*
 the^{DAT} Hans has Mary not helped
wohl aber dem Otto
 PRT but the^{DAT} Otto
- c. *Wem hat Maria geholfen?*
 whom has Mary helped
Dem Hans hat sie geholfen
 the^{DAT} Hanshas she helped
- d. *Fast jeden Kollegen findet der berühmte*
 nearly every^{ACC} colleague thinks the famous
Linguist sympathisch
 linguist (is) nice
- e. *In einem Garten hat Maria den Hund gefüttert*
 in a garden has Mary the^{ACC} dog fed
- f. *Fast jeder Kollege mag den Hans*
 nearly every^{NOM} colleague likes the^{ACC} Hans
- g. *Leider hat keiner dem alten Mann geholfen*
 unfortunately has nobody the^{DAT} old man helped
- h. *In Europa spielen Jungen gerne Fußball*
 ‘In Europe, boys like to play football’

Given the context, the constituent in the prefield of (3a) can be considered a topic. It also belongs to the background information and could be said to connect the sentence to the context. In (3b), the prefield element is contrastively focused. In (3c), the prefield constituent of the first sentence is a wh-phrase; the prefield constituent of the second sentence answers the wh-

question. Thus, in terms of (2), we might perhaps say the prefield constituents of (3b, c) are highlighted.

In (3d, e), the fillings of the respective prefields induce a certain flavour of markedness. This markedness can, but does not have to, be related to focusing or highlighting. It is often assumed that the markedness of examples like (3d, e) disappears if such examples are put into the right context.² (4) illustrates this for (3d):

- (4) *Hans fühlt sich wohl an seinem neuen Arbeitsplatz.*
 Hansfeels REFL fine at his new working place
Fast jeden Kollegen findet der berühmte Linguist sympathisch

So, in terms of (2) we might perhaps say that prefield constituents of (3d, e) can be used to connect their clauses to the preceding text.

However, it is not difficult to find V2-clauses that cannot be made to fit into the characterization in (2). In (3f, g, h), the constituents in the prefield are pragmatically unmarked independent of any context. They neither have to be highlighted, nor do they have to be linked to the context, nor do they have to denote a known referent. This might be expected for a sentence like (3f) since the subject of a transitive verb occupies its prefield. But not only subjects in the prefield give rise to neutral sentences, certain adverbials can also fill the prefield without any special demands on the context. For example, this is true for the sentence adverbial in the prefield of (3g). Note that due to its very nature it cannot be a topic, a background element, or a focus, nor can it be highlighted in any sense. The frame adverbial in the prefield of (3h) can lead to a pragmatically unmarked sentence too. Note that this is also true if the frame adverbial is quantified as in the following example:

- (5) *Fast überall ist Fußball sehr beliebt*
 nearly everywhere is football very popular

The prefield constituent of (5) cannot be topic since topics need to be referential (cf. e.g. Reinhart 1981). Thus, the sentences (3g) and (5), which have pragmatically unmarked adverbials as prefield constituents, immediately disprove the following claim by Bresnan (2001):

- (6) Specifiers of functional categories are the syntacticized discourse functions TOP, FOC and SUBJ.

In sum, the examples in (3) show that the filling of the prefield may affect constituents with various information-structural statuses. Some of the examples are not covered by the characterization in (2) or (6).

Note furthermore that a phrase which stands in an anaphoric relation to the preceding text does not have to occur in the prefield. This is even true if the prefield is occupied by a non-anaphoric element, as is shown by the following text containing (3g):

- (7) *Marias Opa ist heute wegen eines unachtsamen*
 Maria's grandpa is today because (of) a careless
Passanten gestürzt. Leider hat keiner dem alten Mann
 passer-by fallen
geholfen

Although the object *dem alten Mann* is the element which connects the two sentences, it does not have to be placed in the prefield of the second sentence. Thus, the prefield is not the privileged position to express anaphoric relationships. This observation shows that the filling of the prefield with pragmatically unmarked elements in sentences like (3f, g, h) is also of interest when we consider the sentences in context.

Given data like in (3), a number of questions arise. Why do certain fillings of the prefield induce markedness, whereas other fillings do not? Should we assume that the filling of the prefield is always triggered by the need for checking a feature? If so, which features is the prefield associated with? Which feature is checked in sentences like (3f, g, h)? Is there a possibility to systematize the fillings of the prefield?

The paper is organized as follows: Section 2 investigates which elements moved to the local prefield induce markedness and which do not. A first way to fill the prefield is introduced. It is based on a mechanism proposed by Bhatt (1999) for Kashmiri and already adopted for German by Fanselow (2002) (see also Frey 2000). This section also introduces a second way to fill the prefield, which is given by the possibility to base-generate certain adverbials which refer to the discourse structure. Section 3 discusses an information-structural difference between short and long movement to the prefield. It is argued that German, as does Finnish according to Valduví & Vilkuna (1998) and Molnár (2002), gives evidence that contrast constitutes a separate concept of information structure. The observations lead to propose a third way to fill the German prefield. Section 4 proposes a phrase structure for the left periphery of the German clause

which encodes the three different ways to fill the prefield. Some critical remarks on a very different proposal for the analysis of the German prefield conclude the paper.

2. Filling of the local prefield

2.1. Marked versus non-marked fillings of the prefield

As already noted in Section 1, sentences like the following differ in markedness:

- (8) a. *Karl hat das Paket weggebracht*
 Karl has the package taken away
 b. *Das Paket hat Karl weggebracht*
 the package has Karl taken away

With a transitive verb the subject in the prefield yields an unmarked sentence, cf. (8a), the object in the prefield yields a marked structure, cf. (8b). These observations led Travis (1984, 1992) (similarly Zwart 1993) to propose that a sentence with a subject in the prefield is not a CP but an IP, whereas a sentence with another constituent in its prefield is a CP:

- (8') a. [_{IP} Karl hat₁ [_{VP} das Paket weggebracht t₁]]
 b. [_{CP} das Paket₂ hat₁ [_{IP} Karl t₁' [_{VP} t₂ weggebracht t₁]]]

Thus, IPs are supposed to represent the unmarked order and have the subject as the first element, whereas CPs are marked and have a non-subject with a special pragmatic function as the first element. The following contrast was seen as additional evidence for this proposal. Apparently, the (weak) pronoun *es* can be A-moved to SpecIP, but not A-bar-moved to SpecCP:

- (9) a. *Es (= das Kind) hat das Brot gegessen*
 it the child has the bread eaten
 b. **Es (= das Brot) haben die Kinder gegessen*
 it the bread have the children eaten.

However, it is clear that this proposal cannot be the final solution to account for the differences in (8) and (9). In Section 1, it was noted that certain adverbials also give rise to unmarked structures when positioned in the prefield. Furthermore, in clauses with certain verbs, the object is the unmarked element in the prefield. Thus, in addition to (3g, h), repeated as (10a, b) for convenience, we find examples like (10c, d):

- (10) a. *Leider hat keiner dem alten Mann geholfen*
 b. *In Europa spielen Jungen gerne Fußball*
 c. *Dem Karl hat das Spiel gut gefallen*
 the^{Dat} Karl has the match well pleased
 ‘Karl liked the match very much’
 d. *Einem Mitbewohner wurde die Geldbörse entwendet*
 a^{DAT} flatmate was the purse stolen

In (10c), the prefield is occupied by the oblique object of a psych verb, in (10d), by the oblique object of a passive. Both sentences are unmarked. The sentences (10a, b) contain in their prefields a sentence adverbial and a frame adverbial respectively. Note the contrast to the marked sentences in (11), which have adverbials of other types in their prefields:

- (11) a. *In einem Park hat Eva einen Swimmingpool aufgebaut*
 in a park has Eva a swimmingpool set up
 b. *Mit dem Hammer hat Otto das Fenster eingeschlagen*
 with the hammer has Otto the window smashed
 c. *Sorgfältig hat Otto den Artikel gelesen*
 carefully has Otto the article read

In (11a) we find a locative adverbial, in (11b) an instrumental, and in (11c) a manner adverbial in the prefield.

What is the difference between the unmarked examples in (8a) and (10) on the one hand and the marked examples in (8b) and (11) on the other? The answer becomes clear if we consider the base positions the prefield constituents have in the middle field. The base positions of the prefield elements in (8a) and (10) constitute the highest positions in the middle fields of the respective sentences. For (8a) and (10c, d), this was shown by Lenerz (1977), for (10a, b) it was shown by e.g. Frey & Pittner (1998). Therefore, if we transform the sentences in (8a) and (10) into sentences which have all their sentence constituents in the middle field but in the

same order as (8a) and (10) we get unmarked sentences. The following sentences illustrate this for (10a, c):

- (12) a. *weil leider keiner dem alten Mann geholfen hat*
 since unfortunately nobody the^{DAT} old man helped has
 b. *weil dem Karl das Spiel gut gefallen hat*
 since the^{Dat} Karl the match well pleased has

(12a, b) are as neutral as (10a, c) are.

By contrast, the base positions of the prefield elements of (8b) and (11) do not constitute the highest element in the middle field. It is uncontroversial that the base position of the object in (8b) is below the position of the subject. Furthermore, in Frey & Pittner (1998) it was argued that e.g. the base positions of locative adverbials and instrumental adverbials respectively are between the base positions of the subject and the object of a transitive verb, and that the base position of a manner adverbial is below the base position of the object of a transitive verb. Thus, the base positions of the prefield elements of (11) do not constitute the highest elements in the middle fields. This explains why e.g. the following sentences, which have their phrases in the same order as the sentences in (11a, b) but all occurring in the middle field, are marked:

- (13) a. *weil in einem Park₁ Eva t₁ einen Swimmingpool aufgebaut hat*
 b. *weil mit dem Hammer₁ Otto t₁ das Fenster eingeschlagen hat*

The findings so far indicate that if a phrase occupies the prefield of an unmarked clause, it is the leftmost element in the middle field of the corresponding unmarked verb-final clause, and vice versa. Furthermore, we have seen some V2-clauses in which the phrase in the prefield gives rise to markedness. With regard to these, we observed that if the phrase in the prefield occupies the first position in the middle field of the corresponding verb-final clause, a marked structure results, and vice versa.

2.2. Formal Movement and base-generation

The observations in the preceding section indicate that there exists a mechanism to fill the prefield with the highest constituent of the middle field of the same clause which preserves the semantic/pragmatic properties

of the constituent without endowing it with additional ones. Thus, this mechanism does not seem to be related to any semantic or pragmatic property but seems to be a purely formal one.

Other facts also indicate that in German there exists the option to move the highest element of the middle field to the “local” prefield in a semantically/pragmatically vacuous manner:

- (14) a. *Es₁ wird t₁ bald regnen*
 it will soon rain
 b. **Es₁ sagt Karl, dass t₁ bald regnen wird*
 it says Karl that soon rain will
 c. *Leider₁ hat t₁ keiner dem alten Mann geholfen*
 d. **Leider₁ sagte Karl, dass t₁ dem alten Mann keiner geholfen hat*

The prefield of (14a) is filled with the expletive subject of a weather verb. As shown by (14b), it cannot undergo long movement. The same holds for a sentence adverbial. In (14c), the sentence adverbial is in the prefield of the clause it belongs to. The sentence is fine. However, in (14d) the sentence adverbial in the prefield of the matrix clause cannot be understood as belonging to the embedded clause. Under the assumption that elements can be moved to the local prefield without any semantic or pragmatic effect, the examples in (14) can be explained. Expletives and sentence adverbials cannot be topical, focal, emphasized, backgrounded, nor can they have any other pragmatic property. Likewise, they cannot acquire a special semantic property. Thus, they cannot be endowed with any semantic/pragmatic property in addition to their lexical content. However, given the aforementioned assumption, these elements may undergo purely formal movement to the local prefield. This accounts for the grammaticality of (14a, c). Since ‘regular’ \bar{A} -movement necessarily has semantic or pragmatic effects (cf. e.g. Rizzi 2004), these elements cannot undergo regular \bar{A} -movement. Therefore, (14b, d) are ungrammatical.

Our observations so far lead us to follow Fanselow (2002) (cf. also Frey 2000) in adopting for German a proposal which originally was made by Bhatt (1999) for Kashmiri. As a starting point, it can be characterized as follows:

- (15) $[_{CP} XP [_{C} V_{fin}][_{IP} \dots]]$ can be derived from $[_{C} [_{IP} XP \dots V_{fin}]]$ (by moving the finite verb to C and) by moving XP as the highest element of IP to SpecCP (Minimal Link) just in order to fulfil the EPP

As observed by Koster (1978) for Dutch, the movement of a sentence adverbial to the prefield is not permitted to alter the fixed relative order between two sentence adverbials. As shown in (18), the same holds for German. Given (15), this follows immediately. As observed with regard to the examples (14c, d), a sentence adverbial can only get to the prefield via FM. Thus, if there is a sequence of sentence adverbials in the middle field only the highest one can be moved to the prefield and the order between the adverbials will be preserved.

FM moves elements to the prefield with no effect other than to satisfy an EPP feature. As is well known, in order to fulfil the EPP requirement associated with a German V2-clause, it is also possible to base-generate an expletive, cf. (19a):

- (19) a. *Es wurde gestern abend viel diskutiert*
 EXPL was yesterday evening a lot discussed
 b. **weil es gestern abend viel diskutiert wurde*

(19b) demonstrates that the expletive in the prefield of (19a) cannot appear in the middle field.

In sum, a first way to fill the prefield in German can be characterized as follows:

- (20) One way to fill the prefield of a German V2-clause just fulfils the EPP associated with a V2-clause, either:
 (i) by FM as described in (15), or
 (ii) by base-generation of an expletive.

Let us next consider a second way to fill the prefield. It involves base-generation of a semantically contentful phrase:

- (21) a. *Kein Wunder spricht Peter so gut Französisch*
 no wonder speaks Peter so well French
 b. *Ein Glück habe ich den Regenschirm dabei*
 a luck have I the umbrella with me
 c. *Am Randebemerkt bin ich etwas enttäuscht von dir*
 by the way am I somewhat disappointed by you

With the prefield constituents in (21a, b), the speaker comments on the proposition expressed by the rest of the clause in an exclamative way. In

the prefield of (21c), we find a so called “discourse adverbial.” Consider now the following examples with the idiomatic prefield constituents of (21) appearing in the middle field:

- (22) a. **Peter spricht kein Wunder so gut Französisch*
 b. **Ich habe ein Glück den Regenschirm dabei*
 c. **Ich bin am Rande bemerkt etwas enttäuscht von dir*

These sentences are ungrammatical if a parenthetical use of the items in question is avoided. Thus, the prefield constituents in (21) must be base-generated in their position on the surface. This is interesting because given the standard assumption that SpecCP is only filled by \bar{A} -movement (with the possible exception of base-generated expletive *es*), base-generated elements in SpecCP with semantic content are not expected. Note that the prefield constituents in (21) do not seem to be integrated into the proposition expressed by the clause but, rather, relate to the discourse into which the clause is to be embedded. If this is true, they do not have to enter into a licensing relation with the verb or with any verb-related functional projection. Rather, the licenser for these elements might be C. Therefore, I tentatively formulate the following condition for a second way to fill the prefield in German:

- (23) In German, there exists a class of elements whose appearance in the syntactic structure is licensed by C. These elements can only appear in SpecCP, and they are base-generated there.

Further evidence that certain items which relate to the discourse are base-generated in SpecCP is given by the following contrast:

- (24) a. ?*Weil Peters₁ Frau den Laden gut führt, verdient er₁*
 because Peter's wife the shop well runs, earns he
wahrscheinlich viel Geld
 probably much money
 b. ?*Während Peters₁ Frau auf Geschäftsreise war, hat*
 while Peter's wife on (a) business trip was has
er₁ überraschenderweise ein Auto gekauft
 he surprisingly a car bought

- c. *Während Peters₁ Frau sehr erfolgreich ist*
 while Peter's wife very successful is
hat er₁ anscheinend große Schwierigkeiten
 has he apparently serious difficulties

Adverbial clauses introduced by the conjunction *während* in German (or by *while* in English) either provide a temporal specification of the event, illustrated in (24b), or they provide a background proposition of contrast that is “to be processed as the privileged discourse context for the proposition expressed in the associated clause” (Haegeman 2004). In the second function, illustrated in (24c), such an adverbial clause structures the discourse.

Let us first consider (24a), which contains a causal adverbial clause. According to e.g. Frey (2003), a causal adverbial has its base position in the middle field of a German clause above the base position of the subject. Sentence adverbials occupy the highest base position. In (24a), the subject is scrambled across a sentence adverbial. Thus, in its surface position in (24a), the subject c-commands the base position of the causal adverbial. Scrambling of a phrase enlarges its binding options. To check principle C of the binding theory for an R-expression, the base position of the phrase containing the R-expression is relevant (cf. e.g. Frey 1993). These facts together explain why the subject in (24a) induces a principle-C violation of the co-indexed R-expression inside the causal clause.

In (24b), the subject induces a principle-C violation of the co-indexed R-expression inside the preposed temporal clause. According to e.g. Frey (2003), the base position of a temporal adverbial is below the base position of the subject. Therefore, the principle-C violation in (24b) is to be expected.

In (24c), a *während*-clause that has a discourse structuring function occupies the prefield. Interestingly, in this example the scrambled subject does not induce a principle-C violation of a co-indexed R-expression which occurs inside the *während*-clause. This indicates that such a *während*-clause is not related to a trace in the middle field but rather is base generated in the prefield.

Thus, the pattern in (24) shows that e.g. a temporal *während*-clause or a causal clause is base-generated inside IP and is moved to SpecCP leaving a trace in its base position. In contrast, a discourse-related *während*-clause is base-generated in SpecCP.

The next section considers another possibility to fill the prefield in addition to the ones described in (15) and (23). This other possibility is given by genuine \bar{A} -movement.

3. True \bar{A} -movement to the prefield

3.1. The marking of contrast

Let us start with a topic which is moved to its local prefield as in (25). The context given in (25) demands that *den Hans* is treated as an aboutness topic in the following sentence:

- (25) *Ich erzähle dir etwas über Hans.*
 I tell you something about Hans
Den Hans wird erfreulicherweise nächstes Jahr eine
 the^{ACC}Hans will happily next year a
polnische Gräfin heiraten
 polish countess marry

In fact, it is often assumed that in German topics have to be positioned in the prefield (e.g. Molnár 1991, Lambrecht 1994). However, other authors argue that topics may appear in the middle field too (e.g. Hafka 1995, Meinunger 2000, Steube 2000, Frey 2004). As is common in discussions about topics, the different authors use different notions of topichood. In the following, the notion of an “aboutness topic” in the sense of Reinhart (1981) will be assumed. Assuming this notion, Frey (2004) argues that in German, topics may occur in the middle field, but only in a special position reserved for topics. This position is above the base position of sentence adverbials, which according to e.g. Frey (2003) have the highest base position of all sentence constituents:

- (26) *Ich erzähle dir etwas über Hans.*
 a. *Ich habe gehört, dass den Hans erfreulicherweise*
 I have heard that the^{ACC}Hans happily
nächstes Jahr eine polnische Gräfin heiraten wird
 next year a polish countess marry will
 b. #*Ich habe gehört, dass erfreulicherweise den Hans nächstes*
Jahr eine polnische Gräfin heiraten wird

In the well-formed (26a), the topical phrase *den Hans* occurs above the sentence adverbial, in (26b), which is not appropriate in the given context, it occurs below the sentence adverbial. Thus, according to Frey (2004) the following holds (see Frey 2004 for various phenomena supporting the claim):

- (27) In the middle field of the German clause, directly above the base position of sentential adverbials, there is a designated position for topics: all topical phrases occurring in the middle field, and only these, occur in this position.

In (26a), *den Hans* occurs in the topic position in the middle field. It occupies the highest middle field position in this sentence. It follows that a sentence like the second one in (25), repeated as (28b), with the topic *den Hans* occurring in its prefield can be derived from a sentence like the complement of (26a), repeated as (28a), by means of FM:

- (28) a. *(dass) den Hans erfreulicherweise nächstes Jahr eine polnische Gräfin heiraten wird* FM ►
 b. *Den Hans₁ wird t₁' erfreulicherweise nächstes Jahr eine polnische Gräfin t₁ heiraten*

Therefore, a topic which occurs in the prefield of the clause it belongs to may have reached its surface position by means of FM.

Let us now compare a topic positioned in its local prefield, as in (29a), with a topic which has undergone long movement, i.e. a topic which has been moved to the prefield of an upper clause, as in (29b):

- (29) *Ich erzähle dir was über Max.*
 a. *Den Max sollte unsere Gruppe unterstützen*
 the^{ACC} Max should our group support
 b. *Den MAX₁ meint Maria, dass unsere Gruppe t₁ unterstützen sollte*
 the^{ACC} Max thinks Maria that our group support should

There are interesting differences between the prefield constituents in (29a, b). First, in (29b) *Max* needs to receive a pitch accent, whereas in (29a), it

does not have to have one. The fact that long movement of a constituent like the one moved in (29b) is associated with accentuation was already observed by Andersson & Kvam (1984). That a long-moved item gets an accent is confirmed by the following data:³

- (30) *Ich habe etwas über das Verbrechen in der*
 I have something about the crime in the
Wrangelstraße gehört.
 Wrangelstraße heard
- a. *Es hatte anscheinend kein Passant bemerkt*
 it had apparently no passer-by noticed
- b. **Es sagt die Polizei, dass anscheinend kein Passant*
 it says the police that apparently no passer-by
bemerkt hatte
 noticed had

In the right context, a weak object pronoun *es* can be moved to the local prefield, cf. (30a). This shows that the claim to be found in Travis (1984, 1992) and elsewhere that a sentence with an object *es* in the prefield is ungrammatical (illustrated in (9) above) is not true in general. However, as (30b) shows, it is not possible that an object *es* undergoes long movement. This fact can be easily explained. It is well known that in German, the pronoun *es* cannot be stressed. As we have seen in (29b), a long-moved topic receives stress. Thus, *es* cannot be long-moved.

Going back to (29a, b), we observe secondly that the difference with regard to accentuation is related to a difference in the options of interpretation. (29a) can be understood just to be a statement about Max without any further implications with regard to other objects. This is different to (29b). Here, the referent of *Max* is understood as standing in a relation of contrast to other objects which are already under discussion or which are accommodated to be under discussion. Thus, the referent of the moved constituent is felt to be taken out of a set of alternatives the speaker has in mind. Furthermore, (29b) is understood as having the implicature that the sentence does not hold for the alternatives to Max.

The following example (31c) also demonstrates that a sentence containing a long-moved element α has the implicature that the sentence would not be true if α is replaced by an expression that denotes an alternative:

- (31) *Da wir gerade von den Halbfinalspielen reden.*
 since we at the moment about the semifinals talk
- a. *Das 1. Halbfinale wird sich jeder Fußballfan anschauen*
 the 1st semifinal will REFL every football fan watch
- b. *Ich denke, dass sich das 1. Halbfinale jeder*
 I think that REFL the 1st semifinal every
Fußballfan anschauen wird
 football fan watch will
- c. *Das 1. Halbfinale denke ich, dass sich jeder Fußballfan an-*
schauen wird

A speaker might well utter (31a) or (31b) if he thinks that every football fan is going to watch both semifinals but that it is not obvious to the hearer that every football fan will watch the first semifinal. However, under these circumstances it would be strange if this speaker were to utter (31c). Confronted with (31c), the hearer would assume the speaker thinks that the second semifinal will not be watched by every football fan.

Given these observations, we can state the following claim:

- (32) In German, a long-moved topic receives a contrastive interpretation.

The notion *contrast* which is relevant for the examples considered so far can be characterized as follows:

- (33) If an expression α in a sentence S is contrastively interpreted, a set M of expressions which are comparable to α becomes part of the interpretation process of S . M denotes the set of alternatives to the referent of α .
 The utterance of a declarative clause S containing a contrastively interpreted expression α has the implicature that S is not true if α is replaced by any $x \in M$, $x \neq \alpha$.

3.2. True \bar{A} -movement and contrast

A long-moved element cannot have reached its final position via FM. Rather, it must have undergone true (cyclic) \bar{A} -movement from its base position in the embedded clauses. Our findings so far show that long \bar{A} -movement of a topic induces a contrastive interpretation of the topic. The

question now arises whether in German true \bar{A} -movement in general is associated with the effect of contrastiveness.

Let us therefore consider other examples of filling the prefield that cannot be derived via FM but must involve true \bar{A} -movement. Let us start with the answer to a wh-question. As observed in Lenerz (1977), the constituent which gives the answer to a wh-question cannot be scrambled in the middle field, cf. (34a). It follows that the prefield constituent in the answer (34b) did not get to the prefield by means of FM:

- (34) *Was hat Otto vorhin auf dem Markt gekauft?*
 what has Otto earlier on the market bought
 a. ??*Otto hat zwei Kilo Äpfel vorher auf dem Markt gekauft*
 Otto has two kilos apple earlier on the market bought
 b. *Zwei Kilo Äpfel hat Otto vorher auf dem Markt gekauft*

Thus, the prefield constituent in (34b) has undergone true \bar{A} -movement.

Of course, besides (34b) there are other ways to answer the wh-question:

- (35) *Was hat Otto vorhin auf dem Markt gekauft?*
 a. *Otto hat vorhin auf dem Markt zwei Kilo Äpfel gekauft*
 b. *Zwei Kilo Äpfel*

In (35a), the phrase which answers the question remains in situ. In (35b), we find a one term answer. A one term answer constitutes the most natural way to reply to a wh-question like the given one. However, there are questions which demand a full answer, cf.:

- (36) *Was möchte Otto studieren, und wo studiert Ottos Bruder?*
 what wants Otto (to) study and where studies Otto's brother
Otto möchte Sozialwissenschaften studieren und Ottos Bruder
 Otto wants social studies (to)study and Otto's brother
studiert in Hamburg
 studies in Hamburg

What is of interest to us now is whether an answer like the one in (34b), which involves true \bar{A} -movement, has other properties than an answer like (35a), in which the answering constituent remains in situ (cf. also Cook 2003). Consider the following examples:

- (37) *Wie heißt deine Mutter und wann ist sie geboren?*
 ‘What is your mother called and where was she born’
- a. *Meine Mutter heißt Renate und sie ist am 20. Mai 1960 geboren*
 my mother is called Renate and she is on 20th May 1960 born
- b. *#Renate heißt meine Mutter und am 20. Mai 1960 ist sie geboren*
- (38) *In welchem Land ist Otto geboren?*
 In which country is Otto born
- a. *Otto ist in Polen geboren*
 Otto is in Poland born
- b. *#In Polen ist Otto geboren*
- (39) *Eva möchte sich exmatrikulieren. Wohin soll sie morgen gehen?*
 ‘Eva wants to remove her name from the university register. Where should she go tomorrow?’
- a. *Eva sollte zum Prüfungsamt und zur Bibliothek gehen*
 Eva should to the exams office and to the library go
- b. *#Zum Prüfungsamt und zur Bibliothek sollte Eva gehen*

In (37), (38) and (39), the answers given in (a.) sound much more natural than the answers given in (b.).

The questions are designed in such a way that in their most natural readings, they do not refer to a salient set of possible answers. Rather, these questions are looking for purely informational answers. This means that in the answers, the answering constituents are not to be understood contrastively. Thus, given that (37b), (38b) and (39b) are not well-formed, we have evidence that the \bar{A} -movement involved in these examples is related to contrast.

If an answer which has the answering constituent in the prefield can be derived without true \bar{A} -movement the necessity of a contrastive interpretation disappears. Consider the following answer to the question in (39):

- (40) *Eva möchte sich exmatrikulieren. Wohin soll sie morgen gehen?*
Das Prüfungsamt und die Bibliothek sind auf jeden Fall
 The exams office and the library are in any case

aufzusuchen
(to) go to

The answering constituent in the prefield is the subject of the sentence. Its base position is the highest position in the middle field. Thus, the answer in (40) can be derived by FM. Since there is no need to employ true \bar{A} -movement, this answer is fine in contrast to the one in (39).

Let us now consider the behaviour of constituents which are lexically marked for a contrastive interpretation:

- (41) a. [*BÜgeln jedoch*] *macht ihr keinen Spass*
(to) iron however makes her no fun
'Ironing however is no fun for her'
- b. [*Den HANS aber*] *sollten wir einladen*
the^{ACC} Hans however should we invite
- c. [*FUSSball hingegen*] *möchte Maria nicht anschauen*
football however wants Mary not (to) watch
- c. **Ihr macht [BÜgeln jedoch] keinen Spass*
- d. **Wir sollten [den HANS aber] einladen*
- e. **Maria möchte [FUSSball hingegen] nicht anschauen*

If the particles *jedoch*, *aber* and *hingegen* follow a constituent, they mark this constituent as contrastive. As shown by (41), a constituent marked this way cannot remain in situ. Rather, it has to undergo movement to the left periphery.

Let us now look at some further examples with constituents that have undergone true \bar{A} -movement to the prefield. In German, there exist elements which cannot be scrambled:

- (42) a. **dass grün₁ Maria die Tür t₁ streichen wird*
that green Maria the door paint will
- b. **dass schwankend₁ Otto t₁ nach Hause gegangen ist*
that with wavering steps Otto to home gone is
- c. **dass schlecht₁ sich Otto t₁ benommen hat*
that badly REFL Otto behaved has
- d. **dass auf₁ Otto die Tür t₁ gemacht hat*
that PREF Otto the door made has
'that Otto has opened the door'

- e. **dass geflogen₁ Otto noch nicht t₁ ist*
 that flown Otto yet not is

In (43), these very elements are positioned in the prefield:

- (43) a. *Grün wird Maria die Tür streichen*
 b. *Schwankend ist Otto nach Hause gelaufen*
 c. *Schlecht hat sich Otto benommen*
 d. *Auf hat Otto die Türe gemacht*
 e. *Geflogen ist Otto noch nicht*

There is a strong tendency to stress the prefield constituents in (43) and to interpret them contrastively. This can be easily explained. These elements cannot be scrambled to the highest position in the middle field. Thus, they have reached their surface position in (43) via true \bar{A} -movement, which is associated with accent on the moved item and its contrastive interpretation.

It should be noted that under certain circumstances some of the prefield constituents in (43) can remain unstressed, cf. the following example:

- (44) *Ist der kleine Otto schon mal mit dem Flugzeug geflogen?*
 is the little Otto already once with the airplane flown
Nein, geflogen ist Otto noch nicht

Note, however, that for second sentence in (44) there exists the following equivalent version:

- (45) *Ist der kleine Otto schon mal mit dem Flugzeug geflogen?*
Nein, geflogen das ist Otto noch nicht
 no, flown RP is Otto yet not

The second sentence of (45) exhibits a so called ‘*Linksversetzung*.’ This construction marks a sentence topic (e.g. Jacobs 2001, Frey 2004a). This means that the chain which is formed with the dislocated element and the resumptive pronoun represents a sentence topic. In (45), the resumptive pronoun is located in the prefield. As is well known, German shows the phenomenon of topic drop (Huang 1984), cf.:

- (46) *Willst du den neuen Artikel von Peter haben?*
 Want you the new article by Peter (to) have
∅ hab ich schon gelesen
 have I already read

Topic drop allows to delete a topical element positioned in the prefield if this element is reconstructable from the context (Huang 1984).

Given the option of topic drop in German, it seems likely that the second sentence in (44) is derived from the second sentence in (45) by topic drop of the resumptive element in the prefield.

According to Frey (2004a), the resumptive pronoun of a ‘*Linksversetzung*’ first has to be moved to the topic position in the middle field before it might be moved further. As seen in the beginning of Section 3.1, a phrase sitting in the topic position in the middle field may be moved by FM to the prefield. Thus, no true \bar{A} -movement needs to be involved in the derivation of the second sentence of (45). It follows that no true \bar{A} -movement needs to be involved in the derivation of the second sentence of (44) either.

So far, we have seen that different instances of true \bar{A} -movement in German have the effect that the moved item receives a pitch accent. Furthermore, we have seen that the moved item, regardless of whether it is a topic, a focus or something else, is contrastively interpreted in the sense of (33).⁴

Molnár (2002) argues on the basis of evidence from languages different to German that contrast has to be considered an autonomous concept of information structuring (cf. also Frascarelli & Hinterhölzl 2004 for a similar point based on phonological evidence in Italian). Our findings show that contrast also has an independent status in German. This means that it is independent of e.g. topicality and focus, but it can combine with the two to yield a contrastive topic and a contrastive focus, respectively. This suggests that German should be added to the list of languages which call for the enlargement of the set of information-structural categories.

The following section draws consequences from these findings for the structural analysis of the left periphery of the German clause

4. The left periphery in German

4.1. The three ways to fill the prefield

Given the observations in the preceding sections, I would like to pursue the idea that the structure of the left periphery of the German clause encodes that the three possibilities to fill the German prefield. Besides the rare instances of base-generation, cf. (23), these are the following ones:

- (47) The German prefield can either be filled
- (i) by means of FM, which may move whatever is the highest constituent in the middle field - be it base-generated there or scrambled to this position - to the local prefield and has no pragmatic effect,⁵ or
 - (ii) by means of true \bar{A} -movement, which may move (cyclicly) any constituent in the middle field, and which always has the effect of inducing a contrastive interpretation of the moved item.

First, we have to justify the claim embodied in (47) that in fact there exist only these options to fill the prefield. Consider the following sentences:

- (48) *Hans und Maria haben geheiratet*
 Hans and Maria have married
 a. *Bald wird ein Kind kommen*
 soon will a child come
 b. ? *Ein Kind wird bald kommen*

In (48a, b), the temporal *bald* functions as a frame adverbial. As such, it has a base position above the base position of the subject (e.g. Frey 2003). In (48a), *bald* may be moved to the prefield from its base position by FM, or, if stressed, it may be moved by true \bar{A} -movement. Consider now the inappropriate (48b). Its prefield constituent has its base position below the frame adverbial. How could it have got to the prefield?

The first option could consist in scrambling of *ein Kind* to the highest middle field position followed by FM. However, the first step, scrambling, is not really an option here:

- (49) *Hans und Maria haben geheiratet*
 ? *Ich denke, dass ein Kind bald kommen wird*
 I think that a child soon come will

The second sentence of (49) is deviant because scrambling of an indefinite to a position higher than a frame adverbial results in a so called “strong” interpretation of the indefinite (e.g. Diesing 1992). For the example in (49), this means that the indefinite gets a specific reading. Given the content of the example, this reading makes no sense.

The second option to derive (48b) could be via true \bar{A} -movement. However, given our thesis that true \bar{A} -movement necessarily involves contrastiveness, this is not really an option either. Due to the content of the example, it does not make sense to use *ein Kind* contrastively.

Thus, if we assume the correctness of (47) we get a straightforward explanation why (48b) is not well-formed in the given context. The only options available to get *ein Kind* to the prefield result in a deviant interpretation.

On the assumption that (47) is correct we also get a simple explanation for the grammatical status of the following examples:

- (50) a. *Keiner wird heute mithelfen*
 b. *KEINER / *Keiner wird leider heute mithelfen*
 c. *Leider wird keiner heute mithelfen*
 unfortunately will no one today help
 d. *Irgendwer wird heute mithelfen*
 e. *IRgendwer / *Irgendwer wird hoffentlich heute mithelfen*
 f. *Hoffentlich wird irgendwer heute mithelfen*
 hopefully will somebody today help

As illustrated above with different examples, subjects in the prefield may yield an unmarked sentence. In Section 2.2, a clause with an unmarked constituent in the prefield was related to a clause in which this constituent appears in its base position which is, furthermore, the highest position in the middle field. FM moves this element to the prefield keeping its unmarkedness. This explains the unmarked status of (50a, d).

Let us now focus on (50b, e), which contain sentence adverbials. A quantified DP cannot be an aboutness topic (e.g. Reinhart 1981). Thus, given the thesis that scrambling to a position above the sentence adverbials targets the designated position for aboutness topics (cf. (27)), it follows that

a quantified phrase, not being a possible topic, cannot be scrambled to a position in front of a sentence adverbial. Thus, (50b, e) cannot be derived by FM. According to (47), the only option left to derive these sentences is by means of true \bar{A} -movement. This has the effect that the prefield constituents receive stress. It follows that with an unstressed prefield constituent, these sentences are ungrammatical although a regular subject occupies the prefield. The reason why (50c, f) with unstressed prefield constituents are grammatical is obvious. These sentences can be derived by FM.

Another confirmation of (47) is given by the following observation. As is well known the German adverb *wieder* (like its English equivalent *again*) has two readings, a restitutive and a repetitive reading. The first reading refers to the restitution of an earlier state, the second reading refers to the repetition of an eventuality. The following sentence has both readings:

- (51) *Jemand hat das Auto wieder repariert* (restitutive, repetitive)
 somebody has the car again repaired

Now, it is an interesting fact that *wieder* in the prefield can only get the repetitive reading:

- (52) *Wieder hat jemand das Auto repariert* (only repetitive)

This would be hard to explain if the prefield can host any kind of \bar{A} -moved constituent. However, given our assumptions the non-ambiguity of (52) makes perfect sense.

Note first that if a nuclear accent is assigned to *wieder* the restitutive reading gets lost (Fabricius-Hansen 1995). Thus, (51) becomes unambiguous if *wieder* is stressed:

- (53) *Jemand hat das Auto WIEder repariert* (only repetitive)

It follows that restitutive *wieder* cannot undergo true \bar{A} -movement because this would be accompanied by stress on *wieder*. Furthermore, restitutive *wieder* cannot scramble in the German middle field:

- (54) *weil wieder jemand das Auto repariert hat* (only repetitive)

From the fact that a sentence like (54) has only the repetitive reading, it follows that restitutive *wieder* never can become the highest element in the

middle field. In sum, there is no chance for restitutive *wieder* to become a prefield constituent: Neither by means of FM nor by means of true \bar{A} -movement can it get to the prefield.

To summarize, the data in (48), (50) and (52) find a straightforward explanation if we assume that the only options to fill the prefield (except the option to base-generate certain elements) are the options given in (47). If further options existed, we would expect that it should be possible to derive the listed impossible variants.

4.2. Is there true \bar{A} -movement inside the middle field?

Let us now move to a surprising instance of true \bar{A} -movement, which seems to target a position inside the middle field. Normally, the middle field of a German clause is thought to be exclusively the realm of scrambling, which is often thought to be an instance of A-movement (e.g. Haider & Rosengren 1998, Meinunger 2000, Hinterhölzl 2002, Frey 2004). Scrambling is clause bound in German. Thus, in the standard case, we do not find long movement to a position inside the middle field of an upper clause:

- (55) * *da Maria den Max₁ meint, dass unsere Gruppe t₁*
 since Maria the^{ACC} Max thinks that our group
unterstützen sollte
 support should

(55) is sharply ungrammatical. So, it is surprising that there are cases of long movement to a position inside the middle field. The following example is from Brandt et al. (1992):

- (56) *obwohl ver[√]LIEren₁ er nie und \NIMmer glaubte, jemals t₁*
 although (to) lose he never thought ever
lernen zu müssen, ...
 (to) learn to have

(56) shows that in German long \bar{A} -movement in fact may target a position inside the middle field.

(56) contains a so called I-topicalization (“[√]” marks a fall-rise contour). An I-topicalization, in which both stressed constituents induce a contrastive

reading, comes with special appropriateness conditions on the context (cf. Büring 1996, Jacobs 1997), which are not relevant for our purposes. So, we will consider pragmatically easier examples. It is not difficult to construct similar examples in which the long-moved element just has the falling focus accent:

- (57) a. *da den MAX₁ Maria meint, dass unsere Gruppe t₁ unterstützen sollte*
 b. *Petra sagte, dass SO₁ die Wähler in Schleswig-Holstein glauben, dass die Wahlen t₁ ausgehen werden*
 Petra said that that way the voters in Schleswig-Holstein think that the elections result will
 c. *Petra berichtete, dass in BERN₁ Peter hofft, dass sich alle t₁ treffen werden*
 REFL all meet will

It is crucial that in the sentences in (56) and (57), the long-moved elements are focused; the sentences would otherwise be ungrammatical. Furthermore, it is crucial that in (56) and (57) the target position of the long-moved elements is at the very left edge of the middle field. If the target position were further to the right this would result in ungrammaticality. Compare (57) with the following sentences:

- (58) a. **da Maria den MAX meint, dass unsere Gruppe t₁ unterstützen sollte*
 b. **Petra sagte, dass die Wähler SO in Schleswig-Holstein glauben, dass die Wahlen ausgehen werden*
 c. **Petra berichtete, dass Peter in BERN₁ hofft, dass sich alle t₁ treffen werden*

(57) and (58) show that the target position of the long movement inside the middle field has to be immediately below the position hosting the complementizer. It cannot be further to the right.⁶ In Frey (2004), it is claimed that the target position of this “middle field \bar{A} -movement” is between C and the middle field’s topic position characterized in (27).

We are now confronted with two instances of \bar{A} -movement which seem to involve different target positions, but which both involve contrastiveness of the moved item. In Section 3, we considered true \bar{A} -movement of differ-

ent elements to the prefield. Above, we considered (long) \bar{A} -movement of different elements to a position at the left edge of the middle field. The questions arise whether it is a coincidence that both instances of \bar{A} -movement involve contrastiveness and whether we really are dealing here with two different phenomena.

It is tempting to assume that the two phenomena are related. In fact, I will argue in the next section that we are dealing here with one and the same phenomenon.

4.3. A proposal for the structure of the left periphery in German

Consider the sentences (29b) and (57a), repeated here for convenience:

- (59) a. *Den MAX₁ meint Maria, dass unsere Gruppe t₁ unterstützen sollte*
 b. *Da den MAX₁ Maria meint, dass unsere Gruppe t₁ unterstützen sollte*

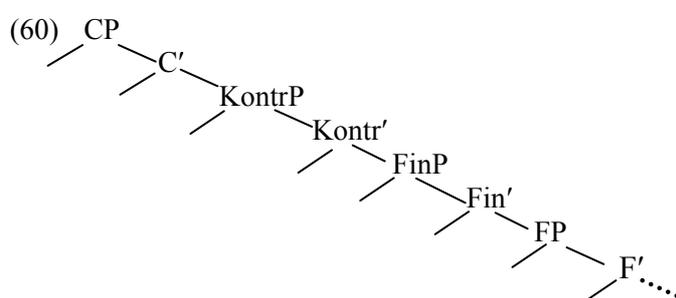
Usually, the middle field is conceived as beginning right below the position of the complementizer. However, data like (59b) were not considered when the so called “field theory” of the German clause was developed. So, it is in no way a decided matter whether *den Max* in (59b) belongs to the middle field, i.e. to the region which is standardly reconstructed as being minimally dominated by IP (or an equivalent node). Suppose that *den Max* does not belong to the middle field (cf. Brandt et al. 1992, Haider & Rosengren 1998). Given its special properties, especially its having undergone long movement, this makes perfect sense. If *den Max* does not belong to the middle field, it might very well be that it occupies the same position in (59b) as in (59a). In fact, in the following, I will suggest that in both sentences, *den Max* is moved to the specifier-position of a functional projection which hosts contrastive elements. This functional projection, which will be called KontrP, is situated in what is often called the ‘C-domain,’ i.e., it is situated higher than the node which minimally dominates the middle field. Under this assumption, the difference between the relevant parts of the sentences (59a, b) is due to the different positions that the finite verb and the complementizer occupy in these sentences.

Furthermore, as argued in Section 2.2, the element which occupies the highest position of the middle field can be moved to what is standardly

called the prefield without any further semantic or pragmatic effect. In the following, the projection which hosts such an element in its specifier-position will be called FinP, the reason just being that in Rizzi's (1997) proposal for the structure of the left periphery, FinP is the functional projection which is not committed to host only elements with a certain pragmatic property in its Spec-position.

Finally, as also argued in Section 2.2, certain discourse-related adverbials can be base-generated in what is called the prefield. I assume that these adverbials are hosted in a further projection, which will be called CP.

(60) shows the structure which I would like to propose for the left periphery of the German clause:



With regard to (60), the following assumptions are made:

(61)

- (i) In (60), CP, KontrP and FinP are \bar{A} -projections. They constitute what is often called the 'C-domain.'
FP does not belong to the C-domain. Rather, FP is an A-projection. According to Frey (2004), SpecFP represents the middle field topic position characterized in (27) (cf. Holmberg & Nikanne 2002 for a similar proposal for Finnish). Thus F may carry an optional EPP feature TOPIC (in fact, it can carry more than one since F may host more than one topic). Furthermore, F licenses the case- and ϕ -features of the subject by means of AGREE.
- (ii) Complementizers (like *dass*, *ob*, *wenn*, ...) can only be generated in C.
- (iii) There can be only one EPP feature in the C-domain. The following holds:
the EPP feature in Fin is a pure EPP feature,

the EPP feature in Kontr is associated with the feature KONTRAST, the EPP feature in C is associated with a feature encoding reference to discourse structure.

- (iv) Clauses introduced by a complementizer are dependent. V2-clauses can only occur in root-contexts. In a V2-clause, the finite verb moves to the head which carries an EPP feature.
- (v) For the sake of concreteness, we assume that only that part of a structure which, given the lexical enumeration, is necessary is generated.

Let us first see which structures are assigned to some of the examples considered above. According to (60), the example (3g) (= (10a)) gets the following structure:

- (62) $[_{\text{FinP}} \text{leider}_1 [_{\text{Fin}'} \text{hat}_2 [_{\text{FP}} [_{\text{TP}} t_1 [_{\text{TP}} [_{\text{VP}} \text{keiner dem alten Mann geholfen } t_2]]]]]]]$

Although not crucial for our investigations, in (62) it is assumed that in the middle field, sentence adverbials are adjoined to TP (cf. Frey 2004). What is relevant for our purposes is that (3g) can get an analysis in which the trace of the sentence adverbial in the prefield occupies the highest position in the middle field. Because of this, the sentence adverbial *leider* can be moved to SpecFin by FM.

Let us next consider (28b), which has a sentence topic in its local prefield. In the relevant parts, it gets assigned the following structure:

- (63) $[_{\text{FinP}} \text{den Hans}_1 [_{\text{Fin}'} \text{wird}_2 [_{\text{FP}} t_1' [_{\text{TP}} \text{erfreulicherweise } [_{\text{TP}} [_{\text{VP}} \text{nächstes Jahr eine polnische Gräfin } t_1 \text{ heiraten } t_2]]]]]]]$

According to (27), the topic position in the middle field is above the base position of the sentence adverbial. The topical *den Hans* checks its topic feature there. Since the topic position is the highest position in the middle field, *den Hans* can be moved further by FM to SpecFinP.

Let us now consider a long-moved topic. A sentence like (29b) gets the following structure:

- (64) [_{KontrP} den Max₁ [_{Kontr'} meint₂ [_{FP} Maria [_{CP} dass t₁'' [_{FP} t₁' [_{TP} unsere Gruppe t₁ unterstützen sollte]]] t₂]]]

In (64) *den Max* has been moved to SpecKontrP.⁷ SpecKontrP is the only possible target for a long-moved item. SpecFinP is not an appropriate target because true \bar{A} -movement has effects with regard to semantics/pragmatics (“it checks a contentful feature,” as some might say). SpecCP is not an appropriate target either because, according to (61)(iii), it can only host discourse-related adverbials. These are base-generated in SpecCP of a root clause.

Nearly the same structure can be assigned to (57a), one of the sentences which seem to show long movement targeting a position inside the middle field:

- (65) [_{CP} da [_{KontrP} den Max₁ [_{FP} Maria meint [_{CP} dass t₁'' [_{FP} t₁' [_{TP} unsere Gruppe t₁ unterstützen sollte]]]]]]]

(65) makes it clear that *den Max* is not part of what should be referred to as the middle field. Rather, in (65) *den Max* occupies the very same position as in (64). Thus, in (65) it is part of the C-domain too. The only difference to (64) is that in (65) there is an additional layer hosting the complementizer above KontrP.

A structure similar to (65) can be assigned to (57b) and to (57c), the only difference being that the long moved items in these examples do not pass through the topic position of the complement clause.

A sentence like (58a), repeated here for convenience, cannot be assigned any structure:

- (66) * *Da Maria den MAX₁ meint, dass unsere Gruppe t₁ unterstützen sollte*

If *Maria* occupies a position inside the middle field of the upper clause, i.e., below FP, then there is obviously no target position for *den Max*. If *Maria* occupies SpecFinP or SpecKontrP of the upper clause, then there is no target position available for the long-moved item *den Max* because, according to (61)(iii), at most one EPP feature can be realized in the C-domain.

The same reasoning rules out the sentences (58b, c). Consider now the following example:

- (67) * *Maria hat den MAX_i gemeint, dass unsere Gruppe t_i unterstützen sollte*

Whereas in (65) the long moved item *den Max* is right below a complementizer, in the ill-formed (67) it is below the finite verb of a V2-structure. According to (60) and (61)(iii), *den Max* in (67) must be in SpecKontrP. Thus, according to (61)(iii), no maximal projection can occur above *den Max*.

The same pattern of grammatical and ungrammatical examples can be demonstrated with elements which cannot be scrambled but moved to the prefield. Such elements were illustrated in (42) and (43). Let us, for example, consider a separable verbal prefix:

- (68) a. *AUF hat Otto die Tür gemacht* (= (43d))
 b. *weil AUF Otto die Tür gemacht hat*
 c. **Otto hat AUF die Tür gemacht*
 d. **weil Otto AUF die Tür gemacht hat*

As shown in (68a), a separable verbal prefix may be moved to the prefield if it is contrastively focused. According to (60) and (61), in this case the prefix occupies SpecKontrP. In (68b), the prefix is again in SpecKontrP, the complementizer occurs in the C-position above KontrP. (68c) is out for the same reason that (67) is. Finally, (68d) is out for the same reason that (58a) (= (66)) is out. Since *auf* cannot be scrambled it can only be moved by true \bar{A} -movement to SpecKontrP.

At this point, I would like to emphasize that the assumptions in (60) and (61) entail the following hypotheses about German:

- (69) (i) the marking of a topic takes place exclusively in the middle field,
 (ii) non-contrasting focus is only to be found inside VP, i.e. in the base position of the non-contrastively focused constituent,
 (iii) \bar{A} -movement which is relevant for the interface is always related to a contrastive interpretation of the moved item,
 (iv) contrast is an autonomous concept of information structure.

With (69)(iv), it is claimed that German confirms a thesis which was put forward by Vallduví & Vilkkuna (1998) and Molnár (2002) and argued for by considering data mainly from Finnish.

A number of consequences, listed in (70), follow from (60), (61) and (69). That these consequences hold empirically was already shown above.

- (70)
- (i) long-moved elements are necessarily contrasted, therefore
 - (ii) elements which cannot be contrasted cannot be positioned in a non-local prefield,
 - (iii) elements which cannot be scrambled are necessarily contrasted if positioned in the non-local or in the local prefield⁸,
 - (iv) it is possible to ‘check’ the features TOPIC and KONTRAST successively: a contrastive topic first undergoes A-movement to the topic position in the middle field and then true \bar{A} -movement to the local SpecKontrP or to a non-local SpecKontrP,
 - (v) it is possible to ‘check’ the features FOCUS and KONTRAST successively: a contrastive focus has its FOCUS-feature licensed in situ and then undergoes true \bar{A} -movement to a SpecKontrP.

Let us finally ask in which projections of (60) a wh-feature can be realized. I will assume that C and Kontr may host a wh-feature. If C hosts such a feature, a dependent yes-no-question is derived, cf. (71a); if a wh-feature is assigned to Kontr, it is associated with an EPP-feature, and a wh-phrase is moved to SpecKontrP, cf. (71b, c):

- (71)
- a. *Ich frage mich, ob Hans kommen wird*
I wonder REFL whether Hans come will
 - b. *Wen besucht Maria*
Who visits Maria
 - c. *Wen glaubst du, dass Maria besucht*
Who think you that Maria visits

There is a difference between short and long wh-movement with regard to weak crossover (Frey 1993):

- (72)
- a. *Wem₁ hat seine₁ Tante eine Südseereise*
who has his aunt a trip to the South Seas
finanziert?
financed

- b. **Wem₁ hat sein₁ Bruder gesagt dass t₁' die Tante t₁*
 who has his brother said that the aunt
eine Südseereise finanziert?
 a trip to the South Seas finances

Short wh-movement as in (72a) does not show a weak crossover effect, long wh-movement as in (72b) shows weak crossover with regard to a pronoun in the matrix clause. This difference can be accounted for if we observe that a wh-phrase functioning as a question word may be scrambled to a position in front of the pronoun such that it can bind the pronoun:

- (73) *Ich weiß, warum wem₁ seine₁ Tante eine*
 I know why whom his aunt a
Südseereise finanziert hat
 trip to the South Seas financed has

For the purpose of binding theory, \bar{A} -movement, in contrast to A-movement, is reconstructed. In the derivation of (72a), the wh-phrase has occupied an A-position in front of the co-indexed pronoun. To this scrambling position, which c-commands the pronoun, the wh-phrase is reconstructed in order to check the binding relation. In contrast, in the derivation of (72b), there is no A-position c-commanding the co-indexed pronoun which the wh-phrase could have occupied and to which it could be reconstructed to check the binding relation. (This account for the difference illustrated in (72) was suggested by G. Fanselow some years ago.⁹)

In the following sentence the binding of the pronoun by the wh-phrase is not as good as in (72a):

- (74) ? *Wem₁ hat seine₁ Tante glücklicherweise eine Südseereise finan-*
ziert?

In (74), *seine Tante* occupies the topic position in the middle field. According to (60), the only A-position in front of it would also be a topic position. A wh-phrase is not a possible topic. Therefore, in the derivation (74) *wem* cannot have occupied an A-position in front of *seine Tante* from which it could bind the pronoun.

4.4. A note on a very different proposal

Let me finally make a comment on a very different proposal for the analysis of the German prefield, which is put forward in Müller (2004). Müller, who assumes that there exists no head-movement in grammar, argues that the prefield and the V2-position are filled together with one constituent, which is a fronted remnant vP. vP movement is possible only if vP is reduced to the edge domain of its head. The edge domain is defined as follows (Müller 2004, 184):

- (75) A category α is in the edge domain of a head X iff
- a. α is the highest overt head reflexively c-commanded by X, or
 - b. α is a specifier that is not c-commanded by any other specifier in XP, and that precedes the head of the edge domain of X.

Let us see how Müller (2004) derives, for example, an object-initial V2-clause like the following:

- (76) *Den Fritz hat die Maria geküßt*
 the^{Acc} Fritz has the Maria kissed

First, a VP is built containing the object and the main verb. Next, a vP is built containing the subject, the VP and the auxiliary. Then, the object is scrambled to SpecvP. (According to Müller, scrambling is always movement to an outer specifier of vP.) After merging T with vP, VP is moved to SpecTP and then the subject is moved to SpecTP. (Müller's TP corresponds to the traditional IP.) According to Müller, the evacuation operation of vP-internal non-edge material targets SpecTP. A subject can always raise optionally to SpecTP. Now, after merging C with TP, vP, which is reduced to its edge domain containing only the object and the auxiliary, is moved to SpecCP, thereby deriving (76)

Müller's (2004) proposal for the analysis of V2-clauses encounters a number of problems. One of them is constituted by the fact that in order to account for a sentence like (77a), Müller (2004) has to assume that a participial VP, i.e., a constituent containing the participle and its object, can be scrambled. According to Müller (2004, 194), the assumption is justified in view of examples like (77b). However, if a participial VP can scramble, nothing rules out a sentence like (77c):

- (77) a. *[Den Fritz geküsst] hat die Maria gestern*
 the^{Acc} Fritz kissed has the Maria yesterday
sicher nicht
 surely not
 b. *dass [den Fritz geküsst] die Maria gestern sicher nicht hat*
 c. **dass die Maria [den Fritz geküsst] gestern sicher nicht hat*

Note that given our assumptions in (60) and (61), we do not have to assume that a participial VP can scramble. Rather, (77a, b) are derived by means of \bar{A} -movement of the VP to SpecKontrP. This is confirmed by the following observations. First, the preposed VPs in (77a, b) have a contrastive interpretation. Second, in contrast to (77b), the following sentence is not grammatical:

- (78) **Gestern hat [den Fritz geküsst] die Maria sicher nicht*

The explanation for (78) is the same as for (67) or (68c). According to (61)(iii), only one Spec-position in the C-domain can be filled. This constraint is violated in (78), but it is fulfilled in (77a, b). In contrast, in Müller's proposal, the ungrammaticality of (78) as well as the ungrammaticality of (77c) is not accounted for.

The very same problem that (77a) raises for Müller's theory also arises in sentences like (43).

A further problem is that Müller has to assume that the answering term of a wh-question can be scrambled in order to derive a sentence like (34b). As illustrated by (34a), this is a highly problematic assumption.

Another problem is constituted by the fact that sometimes the evacuation operation which is necessary to derive the vP which is supposed to constitute the prefield and the V2-position yield unforeseen sentences. According to Müller, in German unstressed NP pronouns must undergo pronoun fronting to a SpecTP-position, where they can be preceded only by a subject. For illustration, Müller (2004, 207) gives the following sentences :

- (79) a. **dass gestern der Fritz sie der Maria*
 that yesterday the^{Nom} Fritz she^{Acc} the^{Dat} Maria
empfohlen hat
recommended has
 b. *dass Fritz sie gestern der Maria empfohlen hat*

However, given Müller's assumptions, we expect a contrast in acceptability between (79a) and (80):

(80) * *der Maria empfohlen hat gestern der Fritz sie*

The reason for this expectation is that in order to derive (80), vP has to be evacuated and, according to Müller, the target of the evacuation operation is SpecTP. (Müller assumes that an adverbial like *gestern* is base-generated in a SpecvP-position.) Therefore, in (80) the subject as well as the adverbial target a SpecTP-position, as does the unstressed pronoun. Thus, according to Müller, whereas, (79a) is bad, (80) should be fine. This expectation is not confirmed by the facts.

The following problem was raised by H. Haider (p.c.). In Müller's (2004) analysis, the well-formedness of (81a) presupposes that in the middle field, it should be possible that the non-finite verbal elements occur to the left of the finite verb, contrary to fact:

- (81) a. *lernen müssen hätte Otto dieses Gedicht*
 (to) learn (to) havehad he this poem
 b. * *weil Otto dieses Gedicht lernen müssen hätte*
 c. *weil Otto dieses Gedicht hätte lernen müssen*

If the given verbal elements occur in the middle field, auxiliary-inversion has to take place, as shown by the contrast between (81b) and (81c). However, if the finite verb occupies the V2-position and the non-finite verbal elements occur in the prefield, we find the non-inverted order, as in (81a).

Finally, in my view, a major problem of Müller's approach is that it has nothing to say about the \bar{A} -movement which targets the position below the complementizer (as illustrated in (56) and (57)), and, crucially, that it has nothing to say about the correlation between this movement and movement to the prefield, let alone about the evidence (illustrated in (64)-(68)) that this movement targets the very same position as one instance of what we call "movement to the prefield."

5. Conclusion

The main claim of the paper is that in German, true \bar{A} -movement to the position that is usually called 'the prefield' is associated with a contrastive

interpretation of the moved element. It was argued that elements positioned in the prefield which do not get a contrastive interpretation have arrived at their surface position by means of a process called 'Formal Movement,' which moves whatever is the highest element in the local middle field to the prefield in a pragmatically vacuous manner. Finally, there exists a third option to fill the German prefield. Adverbials which relate to the discourse may be base-generated there.

The paper argues that these three options involve different structural positions in the 'C-domain' of the German clause. This explains why it is possible to have true \bar{A} -movement to a position right-adjacent to a complementizer.

Notes

1. In (1'b), it is assumed that the embedded clause is base-generated to the left of the subcategorizing verb. It would have to be subsequently extraposed to yield a perfect surface structure.
2. In the sense of Reinhart (1996): “[W]hen the marked form is the only way to reach an interface need, it sounds perfectly normal.”
3. There is a contrast in acceptability between the following examples:
 - (i) *Ein neuer Film mit de Niro ist angelaufen.*
A new movie with de Niro is released
 - a. *Ø sollten wir uns anschauen*
should we REFL watch
 - b. *?Ø meint Maria, dass wir uns anschauen sollten*
thinks Maria that we REFL watch should
 (ia) and (ib) show the phenomenon of topic drop (Huang 1984). Topic drop allows to delete a topical element which is positioned in the prefield if this element is reconstructable from the context. As the examples show, topic drop of a short-moved element is better than topic drop of a long-moved element. If long movement goes together with stress, this difference is to be expected.
4. In many cases, relative pronouns resist long movement:
 - (i) a. *Dort steht jemand, den₁ Maria gestern t₁ kennengelernt hat*
There stands someone who Maria yesterday met has
 - b. **Dort steht jemand, den₁ Maria behauptet, dass sie gestern t₁ kennengelernt hat*

However, there exist examples with long-moved relative pronouns. Anderson & Kvam (1984) cite the following real life examples:

- (ii) a. *Ich würde vorschlagen, dass Sie ... Striche machen, dort, wo₁ Sie meinen, dass ein neuer Abschnitt t₁ beginnt*
I would propose that you strokes make there where you think that a new paragraph starts
- b. *Wir suchen uns die Gruppen aus, mit denen₁ wir meinen, dass wir t₁ gemeinsame Sache machen können*
we choose (for) ourselves the groups PRT with whom we think that we (a) common thing make can

The long-moved relative pronouns in (ii) cannot be stressed. So, there is a difference to the long-moved elements considered in the text. Nevertheless, Andersson & Kvam (1984) assume that in (ii) the relative pronouns are focus constituents. Note that the DPs to which the relative clauses belong are stressed and interpreted contrastively. Since the relative pronouns refer to the same discourse referent as the whole DP, it makes sense to assume that in (ii) it is the relative pronouns that trigger the contrastive interpretation of the DPs.

5. It should be noted that FM ‘overlooks’ a cliticized pronoun. Consider the following sentences:

- (i) a. *weil es den Otto friert*
 since EXPL the^{ACC} Otto cold is
 b. *Den Otto friert es*
 c. **weil den Otto es friert*

As (ic) shows, in this construction the accusative object cannot be the highest element in the middle field. Nevertheless, in (ib) it occupies the prefield without being contrastively focused. Thus, the question arises how in (ib), FM could have applied to *den Otto* in order to move it to the prefield.

There is evidence that in German pronouns appearing adjacent to what is standardly called the ‘C-position’ are clitics:

- (ii) a. *weil ihn Maria repariert hat*
 since it Maria repaired has
 b. **weil ihn und den Motorroller Maria repariert hat*
 since it and the motor scooter Maria repaired has
 c. **Ihn hat Maria repariert*

In (iia) *ihn* can have a non-human interpretation. It can refer to a car, for example. Strong pronouns - unless focused - cannot be interpreted this way. In (iib), *ihn* is coordinated with a full DP. In this example, it cannot have a non-human interpretation anymore. If, as in (iic), *ihn* is positioned in the prefield, it again cannot have a non-human interpretation. We may conclude that in (iia), *ihn* with a non-human interpretation does not have the status of a full DP. Rather, it is a clitic.

These observations suggest that a pronoun adjacent to the C-position may have the status of a head. As a head, such an element is not visible for FM. It follows that in (ib), *den Otto* can be moved to the prefield by FM because it is the highest maximal projection in the middle field.

6. The target position may be to the right of a pronominal, though:

- (i) a. *obwohl er verLIEren₁ nie und \NIMmer glaubte, jemals t₁*
 although he (to) lose never thought ever

lernen zu müssen

(to) learn to have

- b. *Petra sagte, dass sie SO in Schleswig-Holstein*
 Petra said that they that way in Schleswig-Holstein
glauben, dass die Wahlen ausgehen werden
 think that the elections result will

However, given that in German pronouns occurring adjacent to the C-domain may be analyzed as clitics (cf. fn. 5), data like (i) are to be expected.

7. The intermediate trace in the embedded clause is licensed by a so called ‘left peripheral’ deficient feature (Chomsky 2001). Its origin is presumably the head Kontr of the embedded clause.
8. As argued above, sentences like the second one in (44) allow an analysis as ‘Linksversetzung’ plus topic drop of the resumptive element. Under this analysis, such a sentence does not have an element in its local prefield which cannot be scrambled.
9. Another account for the difference between (72a) and (72b) is offered by Grewendorf (2002), who assumes the split C-domain proposed by Rizzi (1997). Grewendorf argues that in overt syntax, short movement of a *wh*-phrase targets the position SpecFinP (taken in Rizzi’s sense), whereas a long moved *wh*-phrase targets SpecFocP in the C-domain. Furthermore, he assumes that SpecFinP is a non-operator position, whereas SpecFocP is an operator position. A phrase in a non-operator position does not induce weak crossover-effects, a phrase in an operator position does. These assumptions account for the differences in (72).

At the heart of the difference between the account indicated in the text and the account in Grewendorf (2002) lies a difference in the analysis of scrambling. Whereas in the text, as e.g. in Haider & Rosengren (1998) and Hinterhölz (2002), it is assumed that scrambling in German is an instance of A-movement and does exhibit A-properties like sensitivity to binding, Grewendorf (2002) assumes that scrambling in German is movement to an \bar{A} -position and does not induce binding effects.

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