

# German Vorfeld-filling as Constraint Interaction\*

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## Abstract

The filling of the vorfeld (= clause-initial position in German declarative clauses) depends on information structural rather than strictly syntactic constraints. Referential phrases of one of the following three types are eligible for the vorfeld: scene-setting elements, contrastive elements and topics. The main point of this paper is to show that these types seem to be ranked: scene-setting elements are the most likely to appear in the vorfeld, followed by contrastive elements and finally by topics. Note that topics are thus not the preferred vorfeld-fillers even in German (see Speyer 2007, Frey 2004a). The difference in likelihood to be in the vorfeld can be modelled by an Optimality Theoretic account that is sketched out in this paper.

## 1. Introduction

German clauses have been described in traditional German linguistics by means of the so-called ‚Feldermodell‘ or ‚field model‘.<sup>1</sup> This model makes crucial use of the fact that the verbal elements show strict constraints on their placement: They can appear either at the beginning of a clause (so-called ‚verb-first‘ or V1-clauses), at a position after the first phrase of the clause (‚verb-second‘ or V2-clauses) or at the very end of the clause (‚verb-final‘ clauses, sometimes abbreviated VL for German *verb-letzt*). VL can be obscured by right-dislocated elements. From this distribution we get two potential positions for verbal material,

one at the beginning of the clause with an optionally filled phrasal position before it, and one at the end. These two positions are called *Linke / Rechte Satzklammer* ‘left / right sentence bracket’.<sup>2</sup> All material which is not part of the verb form floccs either between the sentence brackets, before the left one or after the right one. These positions are referred to as *Mittelfeld* ‘middle field’, *Vorfeld* ‘pre-field’ and *Nachfeld* ‘post-field’, respectively. A schematic overview is given in (1).

(1)		Linke Satzklammer		Rechte Satzklammer	
(Vorvorfeld)	Vorfeld		Mittelfeld		Nachfeld
- coordinators - Left-disloc. material	1 phrase	- finite verb - complementizer	n phrases	- rest of verbal complex - the entire verb. complex	n phrases ( ? ) (right-disloc. material)

I assume a grammatical model in which both the vorfeld and the left sentence bracket are filled by movement in these cases; all non-verbal elements have been base-generated in the mittelfeld, all verbal elements in the RSK (cf. Bach 1962, Koster 1975, den Besten 1983). I furthermore assume that at least in German there is no structural difference between clauses with the subject in the vorfeld and clauses with something else in the vorfeld (cf. den Besten 1983).

We are mostly interested in sentences that have a vorfeld. The archetypical declarative main clause and the archetypical wh-question main clause are the most common clause types with a vorfeld. A typical example of a German declarative main clause is given in (2).

- (2) *Der Wähler hat dem Kandidaten nur zeigen wollen,*  
 The voter has the candidate only demonstrate wanted  
*wie sehr ihm Politik stinkt.*  
 how much him politics stinks

,The voter only wanted to show the candidate, how tired he is of politics.’

VF	LSK	MF	RSK	NF
Der Wähler	hat	dem Kandidaten nur	zeigen wollen,	wie sehr ihm Politik stinkt

Whereas in the case of wh-questions the vorfeld-filling is determined rather strictly – it is the wh-phrase which needs to stand in the vorfeld – in the case of declarative main clauses no such strict conditions seem to hold: Although the syntax of German main clauses requires the vorfeld to be occupied, it does not determine which constituent moves there.<sup>3</sup> It is therefore reasonable to assume that the choice of the phrase which is moved to the vorfeld follows other, non strictly syntactic rules. A natural assumption, which I adopt here, would be that the choice reflects discourse requirements. These requirements are the topic of this paper.

The paper is organized as follows: In section 2 several theories about what could or should be in the vorfeld are presented briefly. Section 3 and 4 refer to a corpus study that I undertook (501 tokens); section 3 states what kind of phrases we do actually find in the vorfeld, whereas section 4 addresses the (more interesting question) what kind of elements have a higher likelihood to appear in the vorfeld than others.

Since the discourse requirements responsible for vorfeld-filling are easiest to identify for referential expressions, and since they make up for the largest part of vorfeld-fillers (405 out of total 501, that is roughly 81%), I confine myself in this paper to cases where the constituent occupying the vorfeld has a clear referent. The conditions under which non-referential expressions move to the vorfeld are left for future research.

## 2. Expectations about vorfeld-filling

Discussion of the filling of the German *vorfeld* in the traditional syntactic descriptive literature notoriously has been spongy, to say the least. Behaghel (1932) e.g. says that certain classes of elements – which are more or less coextensive with the terms topics, contrastive and scene-setting elements, used in this paper – can occur in the *vorfeld*, but which of them has a higher likelihood than the other is never discussed.

In order to test whether we can do better than that, let us look at other languages. German is not the only language with a V2-syntax, which produces a clause structure in which the *vorfeld* is an issue at all. More or less closely related languages have some versions of V2 also, among which are English, Dutch, Yiddish and the Scandinavian languages. In some of these languages it is easier to determine what stands at the front than in German. Starting from these languages we can form some expectations about what we can suppose to find in the German *vorfeld*. Furthermore less closely related languages such as Czech which share with German the trait of a relatively free word order have been studied under functional perspectives e.g. by the Prague School, and their results have been claimed to be applicable also to German. This can function as a second source of expectations.

### *2.1 Subject as unmarked vorfeld filler*

This is the assumption that clearly holds for English (with its obligatory subject-before-verb-syntax) and has been argued to apply also to Dutch (Koster 1975, Travis 1984, Zwart 1997). The main argumentation, using a generative framework in Chomsky's tradition, is as follows: The verb needs to be moved from V to I (or – in English – the inflectional markers from I to V, but this is beside the point) and the subject needs to move to Spec,IP in order to receive nominative case. If we assume that IP is to the left of VP, this movement suffices to give us a kind of V2 sentences, with the restriction that only subjects that can stand before the verb. If something else is to be moved to the left of the verb, another projection needs to be opened

left to IP (usually thought of as being identical to the CP – complementizer phrase – of subordinate clauses), the specifier of which is occupied by the non-subject ‘*vorfeld*’ element; the verb needs to move further to C in order to come again into second place. Under this view ‘*topicalization*’-sentences – i.e. sentences not starting with the subject – are structurally more complex than subject initial sentences; subject initial sentences are automatically more basic than ‘*topicalization*’ sentences as ‘*topicalization*’ sentences are always derived from subject-initial sentences.

A similar analysis was suggested for German already by Bach (1962), to whom virtually all subsequent treatments of German and especially Dutch word order refer in some ways. Whereas, however, in Dutch it is possible to find arguments in favour of such an analysis, e.g. the position of subject clitics (see Zwart 1997), in German it is harder to find compelling evidence in favour of an analysis under which the subject in the *vorfeld* is more basic than other elements. By Occam’s Razor it is easier to assume one underlying clause structure for German than two, if there is no evidence for a twofold analysis. Since there is no evidence for such an analysis, it is highly improbable that a German language learner would derive two analyses – one for subject-initial cases, one for all others – where s/he could do with only one.

The subject, being the highest argument in the structure, still might be less marked than other cases, simply because it is the phrase base-generated closest to the *vorfeld*. It has been noted (e.g. Molnar 1991:169f. with references) that the subject is more often in the *vorfeld* than any other part of speech. Whether this is a direct consequence of subjecthood or only indirectly connected is not clear, however.<sup>4</sup>

## *2.2 English Topicalization: poset-elements*

Prince (1999) argues that topicalization in English – a construction which opens a ‘second’ preverbal position, so to speak, to the left of the subject; examples in (3) – depends on the notion of partially-ordered set (henceforth, poset). In particular, Prince (1999:7) proposes the following condition.

The topicalised element stands in a salient partially-ordered set (poset) relation to some entity evoked in the discourse.

The condition is to be read that only poset elements may be topicalized. For the purposes of this paper, an informal treatment of the poset relation is sufficient; for a more formal discussion, the reader is referred to Hirschberg (1985:122) and Prince (1999:8). A poset relationship exists if the discourse representation contains a set of entities, explicit or implicit, and the topicalised element refers to a member of that set, as in (3a,b), or if a bona-fide set can easily be constructed. A poset relation also exists if the element in question is in contrast to some entity already evoked, as in (3c), or if it resumes a whole set already evoked, as in (3d).<sup>5</sup>

- (3) a. *‘We’ve got Earl Grey, Ceylon, Lemon Ginger, Raspberry, Rose hip. Which’d you like?’ – ‘Earl Grey I’d like.’*
- b. *Thanks to all who answered my note asking about gloves. I didn’t look at this bb for several days and was astounded that there were 11 answers. Some I missed, darn.*

(from Prince 1999:1)

- c. *The necklace she got from a friend. The ring she bought for herself.*
- d. *‘And who did you invite for this spontaneous orgy, you chump?’ – ‘Well, there’s Charlie and Al and Liz and Pat and Tom and Shermey and*

Rick and John and Mary and Bill. All these guys *you'll have to order pizza for, I'm afraid.*'

This construction has in common with the German *vorfeld* that some phrase is fronted; as modern topicalisation developed out of a pattern very similar to the German *vorfeld*-filling (remember that Old and Middle English had a version of V2, too, with minor details distinguishing it from the Modern German version of V2) we can abstract away from the fact that in Modern English the subject intervenes between topicalised phrase and verb.<sup>6</sup> The main point is: If in English poset elements can be fronted, we could expect the same to happen in German too; as German does not have the subject-before-verb-constraint, the *vorfeld* is 'free' to receive the fronted / topicalized element.

### *2.3 Topic or Theme*

Word-order and the information structural requirements determining it have been a focus of research for the linguists of the so-called 'Prague School' (e.g. Mathesius 1928; Daneš 1966). One of the most frequently cited result of their research is the ordering of the sentence according to what they call theme-rheme-structure: The theme (which can be described as a piece of discourse-old information that represents the entity which the utterance is about; one could think of it as kind of heading under which all relevant information is clustered; another, almost identical term is aboutness-topic) has a strong tendency to stand before the rheme (which is all information that is added to the theme cf. Mathesius 1928:66; Daneš 1966:228; Halliday 1967:205; 212; Sgall, Hajičová and Benešová 1973:16). The implications of this assumption for a free word-order language such as German or the Slavic languages, which

have been in the focus of the Prague school, are obvious: In such languages we would expect to find the theme before the rheme even more than in fixed word-order languages, since in free word-order languages nothing hinders the phrases to move around in order to establish the desired theme-rheme structure.

Applied to the problem of *vorfelddbesetzung* this would imply that the *vorfeld* would be the archetypical theme- or topic position, as it is the foremost constituent slot in the sentence. This view is proposed rather frequently indeed (see e.g. Molnár 1991; Vallduví and Engdahl 1996:282ff.). Recent research by e.g. Werner Frey suggests however that the archetypical topic position is rather at the left edge of the *mittelfeld*, that is, immediately after the left sentence bracket (Frey 2004a). So from there it looks as if theme-rheme-structuring is only relevant for the *mittelfeld*, but that for the *vorfeld* potentially other factors hold, independent from theme-rheme-structure.

Slightly related to a theme-rheme structure (in the sense that themes tend to be discourse-old and rhemes tend to introduce new material) is the notion that discourse-old material tends to appear earlier in the sentence than discourse-new material. This has been shown to be relevant especially for non-canonical word-order constructions in English (Birner 2004). So we should not be surprised if *vorfeld*-elements are essentially discourse-old.

We have now three contradicting expectations on what we would expect in the *vorfeld*:

- the subject,
- a *poset*-element or
- the topic.

It will turn out that each expectation can account for a fraction of cases, but that neither expectation could apply to all *vorfeld*-cases.



### 3. Types of vorfeld-fillers in German

Let us now see what kinds of referential expressions we really *do* find in the German vorfeld. It will turn out (not surprisingly) that Behaghel's description, spongy as it is, hits the target, but to make it more clear what is meant by the terms I will dwell on each term and try to approach a suitable definition.

I examined two corpora consisting of text from a variety of genres with varying degrees of formality in order to see what kinds of referential expressions we find in the vorfeld. The first corpus was used only to detect the patterns; the second was used for control and was also the basis of the frequency calculations in section 4. Most examples in this paper are from the second corpus. For this corpus only subliterary texts were chosen (what in German one would call *gebrauchsprosa*), coming from three sources: newspapers (editor's comments and long reports), concert programs and essays written for oral presentation in the radio. These four genres of *gebrauchsprosa* were chosen randomly, but with the thought in mind that they should constitute as different types of *gebrauchsprosa* as possible. The analysed passages out of the texts were chosen randomly, but examined beforehand, whether they were sufficiently coherent (e.g. no lists, no texts consisting almost entirely of quotations etc.). An exact list can be found at the end of the paper.

Only taking sentences into account in which the vorfeld is indeed occupied by a referential expression, it becomes apparent that in the majority of sentences (364 out of total 405 with referential expressions in the vorfeld, that is roughly 90%; 73% of all sentences in the corpus) the vorfeld-element conforms to one of the following three types of elements: Topic, contrast or scene-setting.<sup>7</sup> In the following examples, **topics** are marked bold, their

antecedents are underlined, *contrast elements* are in italics in the glosses and in normal font in the examples, SCENE-SETTING ELEMENTS are in small capitals.

### 3.1 Topic

For the definition of ‘Topic’ I choose as a first step the definition of backward-looking center in Centering Theory. Centering Theory is a framework originally proposed as a model of discourse coherence and the felicitous use of pronouns (Grosz, Joshi & Weinstein 1995; Prince 1998; Walker, Joshi & Prince 1998). In Centering Theory, the referential expressions in an utterance appear on a list of forward-looking-centers ( $C_f$ ), which are ranked in a language-specific way according to non-pragmatic factors such as syntactic function and thematic role.<sup>8</sup> The highest-ranked forward-looking center is called the preferred center ( $C_p$ ). Most sentences – basically all that feel intuitively ‘coherent’ to the previous discourse – have also a backward-looking center ( $C_b$ ), which links the utterance to the previous discourse. By that the referent of the  $C_b$  is coreferential with some entity in the prior discourse. Of the  $C_f$  entities in the sentence, the  $C_p$  is the one with the highest probability of being coreferential with the  $C_b$  of the following utterance. In a highly coherent discourse, the  $C_b$  of each utterance is coreferential with the  $C_p$  of the preceding utterance. An example for a  $C_b$  in the vorfeld is under (4).

- (4) Verteidigungsminister Peter Struck (SPD) hat gestern sein Sparprogramm  
defence-minister Peter Struck (SPD) has yesterday his cut-expense-prgr.  
*bekannt gegeben. Er sieht darin auch einen Schritt zur Reform der*  
known given he sees therein also a step to-the reform of-the  
*Bundeswehr.*  
federal army

Minister of Defence Peter Struck (SPD) proposed his program for cutting expenses yesterday. **He** sees it also as a step towards a reform of the Federal Army.’

(StZ 1,1-2)

C<sub>b</sub>s are often realized as pronouns in the discourse, as also in ex. (4). From this it follows that a possible method of testing whether a referential expression has the potential of being a C<sub>b</sub> is the pronominalization test: If it is possible to replace the referential expression in question with a pronoun and preserve the unique reference of the phrase, there is a good chance that the referential expression is a C<sub>b</sub> (see ex. 5).

- (5) a. *Die Landesverteidigung solle künftig nicht mehr primäre Aufgabe*  
the country-defence shall in-the-future not more primary task  
*der Bundeswehr sein. Die Streitkräfte sollten vielmehr im*  
of-the fed.army be the forces should rather in  
*UN-Auftrag ,überall auf der Welt' einen Beitrag zur internationalen*  
UN-mandate anywhere in the world a contribution to international  
*Sicherheit leisten.*  
security afford  
‘The defence of the country would in the future no longer be the  
primary task of the Federal Army. The **armed forces** (b: **it**) should  
instead contribute to international security everywhere in the world,  
under U.N. mandate.

(StZ 1, 8-9)

- b. *Die Landesverteidigung solle künftig nicht mehr primäre Aufgabe der*

*Bundeswehr sein. Sie sollte vielmehr im UN-Auftrag ,überall auf der Welt' einen Beitrag zur internationalen Sicherheit leisten.*

As the property of being pronominalizable is a necessary but not sufficient condition on centerhood and by that also of topichood, the test cannot determine for sure what the  $C_b$  of a clause is, but it can identify expressions which are definitely not  $C_b$ s. In (6), for instance, the reference with a pronoun in the second sentence crashes. The subject 'Lemon Ginger' cannot be the  $C_b$  of the second sentence as there are more than one equally ranked  $C_p$ s in the preceding sentence.

- (6) a. 'We've got **Earl Grey**, Ceylon, Lemon Ginger, Raspberry, Rose hip.  
*Lemon Ginger is a tremendous beverage.*
- b. 'We've got Earl Grey, Ceylon, Lemon Ginger, Raspberry, Rose hip.  
*# It / This is a tremendous beverage.*

Although examples like (4) and (5), where a whole NP functions as Center, might be expected to be the most common case, they turn out to be not very frequent, and many examples contain less prototypical  $C_b$ s, such as  $C_b$ s which are embedded in other phrases or which are elided. This problem is treated in more detail in Speyer (2007), and it is not relevant here.

Of course it is not only the property of being discourse-old which makes a topic out of a referential expression. The second condition, perhaps more important than the first one, is that the topic is the entity which the sentence is 'about' (Strawson 1964; Halliday, 1967; Kuno 1972; Reinhart 1982; Gundel 1985 etc.). This is a notion notoriously less easy to formalize than the one offered by Centering Theory, but Reinhart (1982) proceeds rather far. Without repeating her formal definitions here, I refer simply to her metaphor of the subject-ordered library catalogue: The topic is described as a 'defining entry' which organizes the

propositions in the context set (the set of all propositions which have been agreed to be true in the previous discourse) and assigns them to referents that are taken from the context set as well. Each sentence has the potential of adding further information to one of these entries. Heim (1982)'s filecard metaphor is closely related: Each 'topic' represents a filecard which is filled with new information as it proceeds; if the topic shifts, a new filecard has to be created or has to be picked up again from the 'stack' of topics already mentioned during the discourse.

For the present study it is sufficient to define topic as an entity which

- is discourse-old information
- functions as heading to which the sentence in question adds information
- conforms to the definition of backward-looking center

In some cases we find a phrase in the *vorfeld* which is not a topic under the definition given above, because it is not discourse-old, but it is a phrase denoting an entity which will be used as topic in the subsequent sentences ("Das Virus" in 7). It is, using Centering-terminology, a preferred center, and the sentence in which it stands has a continue or retain relation to the following sentence; at the same time it functions as center for the first sentence itself, but is newly introduced; so we would have a rough-shift-relation to the previous sentence. As it is a priori not clear whether these cases are archetypical topics or not, they are left out of the calculation (although it turned out that for matters of the ranking described in section 4 these cases behave similar to 'normal' topics).

(7) *Das Virus ist tückisch,*

The virus is pernicious

*bis heute weiß keiner, wie es auf den Campen-Hof gelangte.*

till today knows no-one how it on the Campen-farm arrived

‘The virus is pernicious; to the present day nobody knows how **it** got to  
Campen’s farm.’

(SZ 1, 46-47)

### 3.2 Contrast

Some phrases found in the *vorfeld* of German sentences have a property which can be described as ‘contrast’. It is not ‘contrast’ in the sense of ‘having contrastive focus’, although many examples in this class would show contrastive focus if read loud, but rather ‘contrast’ in the sense of ‘belonging to a set of entities which is being evoked in the discourse (or already has been evoked)’. This description shares much with the definitions of ‘poset-relations’ as given by Hirschberg (1985) and Prince (1999 – note that this is the condition under which English topicalisation can take place, see 2.2), but also with the notion of ‘kontrast’ as defined by Vallduví and Vilkuna (1998).<sup>9</sup> Let me illustrate this with some examples.

Example (8) is perhaps the ‘clearest’ case: A set M is established by being explicitly referred to, and some members of the same set are referred to in the following discourse.

- (8) Bisherige sozialdemokratische Vorzeigeminister *wollen nicht mehr über*  
Former social-democrat present-ministers want not more over  
*sich verfügen lassen.*  
themselves order allow  
Clement *verabschiedet sich*, Struck *lehnt den Posten des*  
Clement takes-leave himself Struck declines the post of-the  
*Außenministers ab(...)* Schröder selbst *hat eine andere „Lebensplanung“.*  
foreign minister ptc. Schröder himself has another life-plan

*Manche werden gar nicht mehr genannt.*

Some become ptc. not more mentioned

Set M: M= Bisherige soz. dem. Vorzeigemin.; M = {..., Clement, Struck, Schröder, ...}

‘Former social-democrat prominent ministers do not want to be available any more. Clement leaves. Struck turns down the post of foreign minister. Schröder himself has another ‘plan for his life’. Some are not mentioned at all.’

(FAZ 1, 3-7)

The set as a whole need not be mentioned before some members are enumerated; it can be referred to as a whole after some members are enumerated (9), or not at all (10). This is the most common case, though the set needs to be easily inferable from its members.

- (9) *Schon jetzt ... haben Union und SPD deutlich gemacht, dass die*  
already now have union and SPD clear made that the  
*Tarifautonomie erhalten bleibt und dass die Sonn-, Feiertags- und*  
wages-autonomy preserved stays and that the sun- holiday and  
*Nachtzuschläge auch künftig nicht besteuert werden.*  
night premiums also in-the-future not taxed become  
*In beiden Fällen haben die Union und ihre Kanzlerkandidatin eine andere*  
In both cases have the union and her chancellor-candidate another  
*Position vertreten.*

position defended

M = {Tarifautonomie bleibt erhalten, Sonn- etc. -zuschläge werden nicht besteuert}

M: M= exclusive social democrat positions agreed upon in the coalition talks

[[in beiden Fällen]] = M

„Even now... CDU and SPD have made clear that the autonomy of wages will be kept and extra pay for work on Sundays, holidays and nights will stay exempt of taxes. In both cases the CDU and its candidate had different views.“

(FAZ 2, 26-27)

(10) *So gehen die Experten davon aus, dass am Grund des Meeres*  
thus go the experts therefrom out that at-the base of-the sea  
*damals eine leichte Strömung vorgeherrscht haben muß.*  
then a light current existed have must  
Hunderte versteinerte Tintenfische *wurden in einer entsprechenden Anordnung*  
hundreds fossilized squid became in a corresponding pattern  
*gefunden.*

found

Die Kadaver der Saurier *waren gegen abgesunkene Baumstämme*  
the corpses of-the saurs were against sunk tree-trunks  
*geschwemmt worden [...].*

washed become

‘Thus the experts assume that a slight current must have prevailed at the bottom of the sea at that time. *Hundreds of fossilized squid* were found in a corresponding formation. *The corpses of the <plesio>saurs* had been washed up against sunken treetrunks.’

M = {..., squid, plesiosaurs, ...}

M: M= animals that can end up on the bottom of Jurassic lagoons

(StZ 3, 37-39)



Normally the members of such a set are mentioned in different sentences, but this needs not be the case. Example (11) shows a sentence in which two such members are enumerated in the same clause.

- (11) *Ihre heimischen Zirkel faßten zu eng. Kein langwieriges Geschäft, keine  
their domestic circles caught too narrow no long-lasting business, no  
kurzweilige Liebe konnte sie binden.  
short-time love could them bind  
'Their domestic circles were too narrow. Neither time-consuming business nor  
entertaining love could bind them.'*

(GrT 1, 37-38)

Note that a locality condition seems to hold for contrastive cases. All references to the set or its members must be made in adjacent sentences. That means, satellites (that is: small self-contained sub-discourses that elaborate on something from the main discourse, but feature a topic different from the main discourse surrounding them) cannot intervene without disturbing the establishment of such a set. They can only intervene if they have the previous contrast element as topic. If in sentence (10), for instance, a clause were to be inserted between the second and third clause that do not take the member 'hundreds of fossilized squid' as a topic, but some other entity in the sentence, it is rather questionable whether the reader or hearer could relate 'the corpses of the plesiosaurs' to the same set as 'squid'; s/he would probably only think that the discourse is strangely incoherent (10').

- (10') *So gehen die Experten davon aus, dass am Grund des Meeres  
damals eine leichte Strömung vorgeherrscht haben muß.  
Hunderte versteinerte Tintenfische wurden in einer entsprechenden Anordnung*

*gefunden.*

*Diese Anordnung erinnerte die Forscher an einen halbmondförmigen Sandkuchen.*

*#Die Kadaver der Saurier waren gegen abgesunkene Baumstämme geschwemmt worden [...].*

‘Thus the experts assume that a slight current must have prevailed at the bottom of the sea at that time. *Hundreds of fossilized squid* were found in a corresponding formation.

This formation reminded the researchers of a crescent-shaped mud pie.

*# The corpses of the <plesio>saur*s had been washed up against sunken tree trunks.

How can we distinguish such contrast cases from normal topics? Note that the present definition of contrast also includes topics, as they evoke a set, too, with only one member, though, namely the topic itself. Under Hirschberg’s (1985) and Prince’s (1999) definition of posets (= partially ordered sets) such cases fall under this definition and by that token resumptive pronouns in English, for example, show similar properties as members of a list etc. with respect to topicalization (Prince 1999 argues that a poset relationship to other entities is the very property which elements must have in order to be topicalized in English and Yiddish).

The pronominalization test, which is applicable to topics, fails for contrast elements, as was demonstrated in (6). So it would be undesirable to subsume both under the same heading. The failure of the pronominalization test gives us a hint how to distinguish these cases, however: Pronominal reference can be made felicitously only if the referent is uniquely identifiable, moreover familiar to the addressee and salient in the discourse (cf. Gundel, Hedberg and Zacharski 1993). Topics have these properties. Contrast elements are not

necessarily familiar or salient; they become salient and inferable only after the first mention of the set or reference to one of its members has been made. As they always have to be seen before the backdrop of the set to which they belong, they are not uniquely identifiable. Rather, the members by themselves are, but as more than one member is enumerated in these cases – which are equally salient – pronominal reference has to crash, as it cannot refer to one of them and allow clear predictions about which one is the referent.

So we can briefly describe the ‘contrast’ elements in the vorfeld as members of a set or the set itself; the set is evoked in the discourse either by direct reference or can be inferred from its members as they are mentioned. All references to the set and/or its members must be made in adjacent utterances. One-member-sets are exempt.<sup>10</sup>

### 3.3 Scene-Setting

Some phrases in the vorfeld could be subsumed under the term ‘scene-setting’. A scene-setting element can be defined as an expression that names a crucial restriction on the situation (such as: the place, the time, etc...) in which the proposition is true (similar definition Jacobs 2001:656). Let me illustrate this with example (12):

- (12) *Zwar den weitesten Weg [...] doch den sichersten [...] nahm Simon Dach,*  
though the farthest way but the most-secure took Simon Dach  
*dessen Einladungen diesen Aufwand ausgelöst hatten.*  
whose invitations this expense caused have  
*SCHON IM VORJAHR [...] waren **die vielen einladenden und den***  
already in-the pre-year were the many inviting and the  
***Treffpunkt beschreibenden Briefe** geschrieben [...] worden.*

meeting-point describing          letters written          become

‘Simon Dach, whose invitations started this business, took the farthest, but the most secure way. ALREADY IN THE PRECEDING YEAR **the huge amount of letters, inviting and describing the meeting point**, had been written.’

(GrT 1, 21-22)

The proposition [[such-and-such letters had been written]] is only true in the situation described by the adverbial ‘already in the preceding year’. In a situation which had e.g. ‘at the narration time’ as time-frame, the proposition would be false.

Scene-setting elements are thus mostly local or temporal adverbials, including expressions like ‘now’, ‘then’, ‘always’ etc. Another example would be (13):

(13) *Erstmals haben am 11.September gesellschaftliche Akteure international first-time have at 11 September communal actors internationally zugeschlagen... AN DIESEM TAG fand der erste Angriff im Weltbürgerkrieg struck on this day took the first attack in-the world-civil-war statt.*  
place

‘On September 11 non-governmental agents have struck for the first time internationally... On this day the first attack in the global civil war took place.

(L2, 15-16)

The proposition [[the first attack in the global civil war took place]] is true only at the date given by the scene-setting element [[on this day]], referring back to September 11 of the preceding sentence.

Not all local and temporal adverbials fall under this definition, of course. Take a sentence such as (14), for example:

- (14) Niemand wollte um diese Uhrzeit nach Köln fahren  
'nobody wanted to drive to Cologne at this time of day.'

There are two adverbials in this sentence, one local and one temporal one. But “um diese Uhrzeit” does not modify the main proposition p ‘nobody wanted q’, but the subordinate proposition q ‘to drive to Cologne’. It is conceivable that only specifications of the matrix situation show this strong tendency to appear in the vorfeld, although a sentence with this element in the vorfeld does not sound infelicitous (14’).

- (14’) Um diese Uhrzeit wollte niemand nach Köln fahren

But the interpretation is ambiguous between “um diese Uhrzeit” modifying “nach Köln fahren” or “wollte”.

The phrase “nach Köln” finally is, strictly speaking, not adverbial at all; one could argue that the goal is a necessary complementation of the verb ‘fahren’ and thus an argument rather than an adjunct. As arguments are inalienable parts of the proposition it is impossible under the definition of scene-setting elements given above to use them as scene-setting elements. Note furthermore that “nach Köln” behaves differently with respect to vorfeld-movement: Whereas in the case of “um diese Uhrzeit” vorfeld movement was still somewhat possible, however at the prize of introducing ambiguity (14’), it is possible with “nach Köln” only in a contrastive context (14’).<sup>11</sup>

- (14’’) a. *Die Uhr schlug elf.*

the clock struck eleven

*#Nach Köln wollte um diese Uhrzeit niemand fahren.*

To Cologne wanted at this clock-time nobody drive

‘The clock struck eleven. Nobody wanted to drive to Cologne at this time of the day.’

b. *Die Uhr schlug elf.*

the clock struck eleven

*Nach Köln wollte um diese Uhrzeit niemand fahren, nach*

To Cologne wanted at this clock-time nobody drive to

*Düsseldorf schon gar nicht.*

Dusseldorf already very not

‘The clock struck eleven. Nobody wanted to drive to Cologne at this time of the day, even less to Dusseldorf.’

Under this definition of scene-setting elements which are not clearly referential can also be included (cf. Jacobs 2001:655ff.), such as certain adverbials limiting the domain of the proposition like in sentence (15a) – strictly speaking, all adverbials of a ‘with respect to X’ sense would be included – or conditionals, be they realized nominally (15b) or as a clause (15c). They are left out of the subsequent analysis, however, as I wanted to restrict it to classical referential expression.

(15) a. *Körperlich geht es Peter gut*

body-wise goes it Peter good

‘Peter is fine, with respect to his body’

b. *Im Falle eines Sieges wird die Mannschaft eine Belobigung*

In case of-a victory will the team a commendation from-the  
*vom Präsidenten erhalten*

president get

‘In the case of victory the team will receive a commendation from the  
president.’

c. *Wenn sie siegt, wird die Mannschaft eine Belobigung vom Pr.*

If she wins will the team a commendation from-the p.  
*erhalten*

get

‘If it wins, the team will receive a commendation from the president’

(15a, b after Jacobs 2001:655)

### 3.4 Problems for the subsequent analysis

We have seen that most referential expressions in the *vorfeld* fall under one of the three following types: topic, contrast, scene-setting. One sees on first glance that these terms belong to completely different pragmatic dimensions. A rather undesirable consequence of the fact that these types of elements do not form a homogenous class is that elements exist which can belong to two types at the same time. It is not altogether possible to define these types of element in such a way that they exclude each other, since they do not belong to the same pragmatic dimension. Take givenness, for example: Topics are clearly given information – this is part of their definition – contrast elements are inferable – this is part of *their* definition. But scene-setting elements are not per se of a certain givenness status – they can be discourse-old or discourse-new. The example (12) was an example of a discourse-new scene-setter (as

can be checked from the context from which the text is taken. An example for a discourse-old scene-setter would be (13).

An extreme example is “In der Asienkrise der neunziger Jahre” in (16):

- (16) *Von der Konvertierbarkeit ihrer Währungen profitierten vor allem westliche Banken und Investoren, während die betroffenen Länder in einer Finanzkrise versanken.*  
from the convertability of-their currencies profitted in-first-place western banks and investors whereas the affected countries in a financial crisis submerged  
*1998 traf sie Russland, 1999 Brasilien, die Türkei 2001 und IM GLEICHEN JAHR auch Argentinien.*  
1998 hit it Russia 1999 Brazil the Turkey 2001 and in-the same year also Argentina  
*IN DER ASIENKRISE DER NEUNZIGER JAHRE verloren manche Regierungen ihr Amt, viele Menschen aber ihren Arbeitsplatz und ihre Ersparnisse.*  
In the Asia-crisis of-the 1990s lost some governments their mandate many persons but their job and their savings.  
‘western banks and investors profitted mostly from the compatibility of their currencies, whereas the affected countries sank into a financial crisis.  
1998 it hit Russia, 1999 Brazil, Turkey 2001 and in the same year also Argentina.  
In the crisis in Asia in the 1990s some governments lost their mandate, but many people their job and their savings.’

(L2, 32-34)



“Krise” can be taken as topic; the topics of this passage are financial crises, and it is clearly the topic of sentence [L2,33], so it could be understood as such also in [L2,34]. “Asien”, however, is clearly a contrast element, forming a set ‘M:M=regions and countries subject to financial crisis’ together with {Russia, Brazil, Turkey and Argentina}. The whole phrase “In der Asienkrise der neunziger Jahre”, finally, conforms to the definition of scene-setting element which was provided above.

The impossibility to assign all vorfeld-fillers to one and only one type on the basis of the definitions given above is not a real problem as long as we are only interested in what kind of elements can be in the vorfeld at all. But as soon as we go on asking and try to solve the question, which of these elements are more preferred than the others for vorfeld-placement, the tokens that conform to more than one definition do pose a problem in that there is no way to choose which one of the factors is the one mainly responsible for their movement to the vorfeld. I am not sure whether it is possible to rephrase the definitions so that in the end their definitions are such that it is really possible to say of a given element that it is e.g. contrast and nothing but contrast. Operationally the best we can do is to concentrate on the examples which can be assigned to only one type, and use only those for the subsequent analysis.

#### **4. The ranking of vorfeld-fillers**

As was said above, most the referential phrases in the vorfeld are either topic or contrast or scene-setting elements. These three properties obviously favour vorfeld-movement; phrases that conform to one of these properties are singled out and moved preferably to the vorfeld.

We have to ask now what happens if the sentence contains more than one phrase with a vorfeld-favouring property.

In many sentences this is not a problem, as they have only one topic and no contrast or scene-setting element, or only one contrast element and neither topic nor scene-setting element, etc. But there are still many sentences that have two or more phrases attracted to the vorfeld. The easiest way to find out what is going on is to gather the sentences that contain both a topic and a contrast element, both a topic and a scene-setting element, both a contrast and a scene-setting element or all three types of elements, and see which type of element is really in the vorfeld. As was mentioned in section 3.4, only sentences in which the elements in question can be assigned exclusively to one category are taken into account.

Table 1: Topic + Contrast (ex. 17)

	total number	Contrast in VF	Topic in VF	sth. else in VF (see note 7)
numbers	32	20	9	3
percent	100 %	63 %	28 %	9 %

This result is probably skewed by one text (L2) which alone accounted for 5 cases in which the topic was in the vorfeld (ex. 18). The topic was preferred in these cases for either stylistic reasons (in order to create series of sentences with anaphor in a rhetorical sense, that is, sentences starting with the same word) or processing constraints (as e.g. not to put too heavy elements into the vorfeld).

Table 2: Topic + Scene-setting (ex. 19)

	total number	Sc.-setting in VF	Topic in VF	sth. else in VF
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numbers	29	25	4	0
percent	100 %	86 %	14 %	0 %

Table 3: Contrast + Scene-setting (ex. 20)

	total number	Contrast in VF	Sc-set. in VF	sth. else in VF
numbers	16	3	12	1
percent	100 %	19 %	75 %	6 %

Table 4: Topic + Contrast + Scene-setting (ex. 21; also one in 16: L2,33)

	total number	Contrast in VF	Topic in VF	Sc.-sett. in VF	sth.else in VF
numbers	7	1	0	6	0
percent	100 %	14 %	0 %	86 %	0 %

(17) *Die Richtlinienkompetenz des Kanzlers gilt... nicht...gegenüber*

the guideline-competence of-the chancellor is-valid not toward

*dem Bundestag [...]*

the parliament

Die Parteien *bestimmen die Richtlinien der Politik*

The parties determine the guidelines of-the politics

der Reichskanzler *wurde als Vollzieher und Hüter der*

the empire-chancellor became as fulfiller and guardian of-the

*Koalitionsrichtlinien* bezeichnet.

coalition-guidelines addressed

‘The Chancellor has no competence in how to interpret the guidelines opposed to the parliament. The parties determine the political guidelines; the chancellor was addressed as fulfiller and guardian of the coalition’s guidelines

(FAZ 2, 18; 20-21)

(18) *Sie* (= *Non-Government-Organizations*) *verstehen sich als der bessere*

They understand themselves as the better  
*Repräsentant der abendländischen Kultur [...].*

representative of Western culture

*Sie kümmern sich um die Benachteiligten, [...]*

They care themselves for the disadvantaged

*Sie helfen bei der Konfliktbearbeitung und bei der Konfliktlösung.*

they help at the conflict-treatment and at the conflict-solution

‘They see themselves as the better representatives of Western culture. They

care for the disadvantaged. They help at the treatment and solution of

conflicts.’

(L2, 45-48)

(19) *AM DIENSTAG MITTAG können die deutschen Helfer [...] aufbrechen.*

At Tuesday noon can the German helpers start

‘Tuesday at noon the German helpers can start’

(FAZ3, 46)

(20) *ZU BACHS ZEITEN hatten beide Feiertage eine wichtige Stellung im*

At Bach’s times had both holidays a important position in-the

*Kirchenjahr.*<sup>12</sup>

church-year

Zum Reformationstag komponierte **Bach** ... die beiden heute gespielten

To-the reformation day composed Bach the two today played

Kantaten [...]

cantatas

Zu Michaelis komponierte **Bach** außer BWV 19 und 149 noch BWV 50 ...

To Michaelmas composed Bach besides BWV 19 and 149 also BWV 50

‘At Bach’s time both holidays were prominent in the festival calendar of the

<Lutheran> church. For reformation’s day Bach composed the two cantatas

played tonight. For Michaelmas Bach composed besides BWV 19 and 149 also

BWV 50.’

(Ri1, 7-8; 10)

(21) IM UMKREIS VON DREI KILOMETERN töteten **sie** (= the veterinary officers,

In radius of three kilometres killed they

mentioned in preceding sentence) sämtliches Geflügel, *mit Gas, per Stromstoß*.

all poultry by gas by electric shock

‘In a 3-km-radius they killed all poultry, using gas and electric shocks’

(SZ1,43)

We see clear trends from tables 1-4: If a scene-setting element is one of the competitors, it wins out in most cases (Tables 2, 3, 4: 43 out of 52 cases = 83%). It does not matter whether the other competitor is a topic or a contrast element. If no scene-setting element is among the competitors, i.e. if the competition is between contrast and topic, contrast wins out in most cases. This is not so clear from the tables above; that this preference can be overridden at all suggests that it is not as strong as the preference for scene-setting elements in the vorfeld.

These numbers suggest that vorfeld-placement is not strictly categorical but happens on a competitive basis: There are three ‘constraints’ on vorfeld-placement; these constraints are understood in a sense close to Optimality Theory (to which see e.g. Prince and Smolensky 1993; Kager 1999). The three constraints are:

Constraint 1 (TOPIC-VF): The topic is moved to the vorfeld

Constraint 2 (CONTRAST-VF): The contrast element is moved to the vorfeld

Constraint 3 (SCENE-SETTING-VF): The scene-setting element is moved to the vorfeld

If these constraints are ranked in the following order, we would expect exactly the distribution which we observed.

SCENE-SETTING-VF >> CONTRAST-VF >> TOPIC-VF

This ranking can be read as: if a sentence contains more than one phrase conforming to the conditions stated in the vorfeld-constraints, the optimal candidate has the phrase in the vorfeld that conforms to the conditions of the highest-ranked relevant constraint. As constraints in Optimality theory are violable in principle, it is not tragic if the constraints in this ranking do not account for all 100% of cases; the ‘exceptions’ in tables 1-4 might either be suboptimal candidates which simply happened to slip in instead of the optimal ones (the basic idea behind Stochastic Optimality Theory), or they might be due to interaction with further constraints. The author of text L2, for instance, has a stylistic-rhetorical constraint (like ‘sentences start with identical words’) and another, more central constraint (Behaghel’s Law of increasing members, phrased as a constraint: ‘heavy elements are to the right’) that interfere with the three vorfeld-constraints outlined above; it is ranked higher for him (or for his perception of the genre he is writing in) than the three vorfeld-constraints and thus candidates are chosen

that, strictly speaking, are not the optimal candidates if the optimal output was determined only by the three vorfeld-constraints.

As examples (19) to (21) suggest, the topic tends to appear in the middelfeld-initial position in cases in which it is ousted from the vorfeld-position by higher-ranked elements. This is in accordance with Frey (2004a)'s findings. The topic can move from this position into the vorfeld only if the vorfeld is not filled otherwise. The reason why it is the topic that is singled out for vorfeld-movement in these cases is perhaps because it is the closest phrase, being in the topmost adjunct or (in the case of subject topic) argument position within the mittelfeld or IP.

If one changed the word order in examples (17) and (19) to (21) and put the lower-ranked phrase into the vorfeld instead of the phrase that has been put there according to the constraint ranking one would see that the resulting sentences would sound slightly less acceptable than the original sentences in the given context. This might be further evidence in favour of the ranking proposed here.

## **5. Conclusions**

A corpus-study showed that the German vorfeld is filled according to pragmatic considerations, but that it is not possible to pinpoint one property which a phrase must have in order to be moveable to the vorfeld, but that there are at least three competing properties, viz. Topichood, Contrasthood or being a Scene-setting element. In cases in which the sentence contains more than one phrase conforming to one of these properties, vorfeld-movement follows the ranking scene-setting >> contrast >> topic.

## Notes

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<sup>1</sup> For further discussion of the field model, see Grewendorf, Hamm, and Sternefeld 1987 and Reis 1987:147.

<sup>2</sup> The whole verbal complex is presumably generated in clause-final position, that is: in the right sentence bracket. If the left sentence bracket is already occupied by a complementizer (which presumably is also generated there), no part of the right sentence bracket can move. If the left sentence bracket is empty, the finite part of the verb form is moved there; if the verb form is only one word, the verb form as a whole moves there. The left sentence bracket cannot be left empty. The left sentence bracket corresponds to C, the vorfeld corresponds to Spec,CP in generative terms (Vikner 1995).

<sup>3</sup> Purely syntactic accounts have been proposed, too, e.g. Frey (2004b) who assumes three vorfeld positions, SpecCP, SpecKontrP (for contrastive elements) and SpecFinP (for any element that is high in the middle field, either base generated high or scrambled) and derives similar effects as the ones discussed in this paper by A'-movement of phrases into these positions. Especially certain adverbials and scene-setting elements are generated high in the mittelfeld (see Frey and Pittner 1998) and can permeate into the vorfeld because of that;



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likewise topics (that are moved to a topic position right below FinP). He has to make reference to discourse structural requirements, too, though, so the difference is perhaps not too large, and my account and Frey (2004b) probably turn out to be reconcilable.

<sup>4</sup> Speyer (2004; 2007) argues that it is epiphenomenal.

<sup>5</sup> The font conventions in the examples are as follows: standard text: italics. Topics: boldface. Antecedent of topic: underlined. Contrastive element: non italic. Scene-setting element: small caps. In the glosses italics stand for contrastive elements.

<sup>6</sup> This is especially true since the ‘competing’ fronting construction, Hanging Topic Left Dislocation, can be distinguished quite easily (see Shaer and Frey 2004).

<sup>7</sup> The remaining 10% of cases are either subject pronouns (on which see Speyer 2006), expletive ‘es’ or elements that have in common their being discourse-new elements. An example would be “*Mehr als 100000 Jobs* sind nach dem 11. September in Manhattan verloren gegangen.” (“more than 100 000 jobs have been lost in Manhattan after 9/11”; StZ 6, 19), where the information “more than 100000 jobs” was never mentioned in the text, let alone evoked, thus it is brand-new. To deduce from that that being discourse-new is a property which makes a phrase eligible for vorfeld-movement is premature; I indeed never thought that, although the wording in Speyer 2004 might suggest that. The key property of these phrases which makes them move to the vorfeld still needs to be found.

<sup>8</sup> Strube and Hahn (1996) argue that centers are ranked according to functional criteria in free word-order languages, esp. German. In the light of Speyer (2007) this is slightly circular: The centering hierarchy is meant to *create* something akin to a theme-rheme-structure, but does that starting from independent factors. To say that the centering hierarchy takes a theme-rheme-structure as a starting point to create a theme-rheme-structure is circular.

<sup>9</sup> A more strict definition of what was termed ‘p-kontrast’ in Speyer (2004) is too strong for the observable cases and can only capture a subset.

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<sup>10</sup> Linking my results back to Birner 2004 shows partial concord: Topics are per definition discourse-old; contrastive elements are at least evoked (by other members of the set). The generalisations for English do not hold for German. Scene-setting elements, however, need not be discourse-old; good examples are clauses at the beginning of paragraphs that ‘set the scene’: To begin a text by e.g. “In der Lagerhalle 45 des Duisburger Hafens war es ganz still, bevor der erste Schuss fiel.” (“in storage hall 45 of the Duisburg harbour it was completely quiet, before the first shot rang out”; my example) is completely normal; yet the *vorfeld*-element simply cannot be discourse-old here, simply because there was no discourse up to that point. Further bear in mind that there is a class of elements, mentioned in note 7, that seem to possess ‘discourse-newness’ among their properties.

<sup>11</sup> A reviewer pointed out that the sentence sounds better if an ‘*aber*’ is inserted: “Nach Köln wollte um diese Uhrzeit *aber* niemand fahren.” The particle “*aber*” induces a contrastive reading for the sentence as a whole, implicating that there are alternatives to the preposed element in the discourse universe, even though they are not explicitly mentioned.

<sup>12</sup> Note that “*Bach*” appears for the first time in the text; therefore, it is not to be regarded as the Topic in [Ri1,7].

## References

*Corpus:*

### 1.: Newspaper: Comments

FAZ1: Frankfurter Allgemeine, 12.10.2005, p.1 “Hoffnungsträger gesucht”

22 sentences

FAZ2: Frankfurter Allgemeine, 12.10.2005, p.1 “Richtlinienkompetenz unter gleich Starken

48 sentences

Sum: 70 sentences

## 2.: Newspaper: Reports

FAZ3: Frankfurter Allgemeine, 12.10.2005, p.9 “Kein Laut mehr aus den Trümmern”

79 sentences

SZ1: Süddeutsche Zeitung, 24.10.2005, p.3 “Wenn es still wird im Stall”

99 sentences

Sum: 178 sent.

## 3.: Concert Program Notes

Ri1: Konzertprogramm Int.Bachakademie Konz. 23.10.2005, p.1

13 sentences

Ri2: Konzertprogramm Int.Bachakademie Konz. 23.10.2005, p.10f.

30 sentences

Ri3: Konzertprogramm Int. Bachakademie Konz. 20.11.2005, p.5ff.

44 sentences

FB1: Konzertprogramm Freiburger Barock Konz. 10.3.2006, p.7

11 sentences

FB2: Konzertprogramm Freiburger Barock Konz. 10.3.2006, p.9ff.

28 sentences

Sum: 126 sent.

## 4.: Radio essays

L1: Radioessay “Am Anfang war der Big Bang”, SWR2 Aula, 15.1.2006.

58 sentences

L2: Radioessay “Die Globalisierung des Terrors”, SWR2 Aula, 7.9.2003.

69 sentences

Sum: 127 sent.

**Total: 501 sentences**

*Other Sigla (examples from the 1<sup>st</sup> corpus, see Speyer 2004, Speyer 2007):*

StZ1: Stuttgarter Zeitung, 22.2.2003, p.1 “Struck legt Tornados und Boote still”

StZ3: Stuttgarter Zeitung, 22.2.2003, p.34 “Auferstehung eines Schnitzzahnsauriers”

StZ6: Stuttgarter Zeitung, 28.2.2003, p.29 “Am 11. September wirft die Sonne keinen Schatten”

GrT: Günther Grass: Treffen in Telgte.

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