

THE FINAL FIELD IN GERMAN:
EXTRAPOSITION AND FROZEN POSITIONS

This chapter deals with what is traditionally called the Final Field (Nachfeld) in traditional German grammar. I assume that, in transformational terms, the contents of the Final Field, like those of the Initial Field are related to positions in the Middle Field. <1> I do not assume that all these relations proceed through transformational derivation, i.e. via the rule Move Alpha.

I will first provide a mechanism by which to identify the Final Field; then I will examine what kinds of constituents are found in the Final Field (section 1). In section 2, I will propose an analysis for dependent sentences in the Final Field, arguing that different kinds of sentences have different sources (different base positions). In section 3, something will be said about extraposition of PPs and NPs. For one, this will be connected with semantic restrictions as formulated by Guéron (1976,1980); from another angle, the "frozenness" of positions in the Final Field will be analyzed as a reflection of a central principle of grammar, namely Wexler & Culicover's Raising Principle (1980: 137-144, 335-343).

1. The Final Field.

1.1. How to identify the Final Field.

In the Topological Fields Theory, the Final Field (FF) is defined as the part of the sentence following the second sentence bracket. Assuming an underlying SOV order for German, the second sentence bracket is defined as the base position of the finite verb. <2> In subordinate clauses, the finite verb is in its base position ((1)a); in main clauses it is in fronted position, so the base position is empty. <3> The base position may however be indicated by other parts of the verbal complex such as separable prefixes (see ex. (1)b), infinitives or participles ((1)c). Example (1)d involves a main clause in which the base position of the finite verb can only be found by constructing the corresponding dependent clause.

- (1)a daß er behauptet, daß er alles versteht
(that he claims that he everything understands)
that he claims to understand everything
- b Er teilte mir heute mit, daß er genial sei.
(he announced to-me today PREFIX that he a genius was)
Today he told me that he was a genius.

- c Er hat schon oft gesagt, daß er seine Frau nicht mag.
(he has already often said that he his wife not likes)
He has said often enough that he doesn't like his wife.
- d Sie sagte leise, daß sie ihn für verrückt hielt.
(she said in a low voice that she him for crazy
considered)
She said in a low voice that she thought he was crazy.

In (1)a-d, the parts following the commas are in the FF.

1.2. The constituents found in the Final Field.

It is often stated in German language course books and grammars, as e.g. Duden (1973), that the FF is empty in the unmarked case. This statement should be modified as follows: The written language, which is strongly influenced by normative stylistic rules, obeys the "verb at the end" rule in a large number of cases (with the exception of extraposed dependent clauses). Spoken modern German, on the other hand, extraposes constituents from the Middle Field more freely, especially adverbs and PPs. Argument NPs are not extraposed in the normal case; they may be in highly marked structures, to which we will return in subsection 3.2. It is the modern colloquial language which will be our primary topic, as throughout this book.

In the next section, we will concentrate on dependent clauses in the FF; other constituents will be treated in section 3.

2. Dependent clauses in the Final Field.

2.1. Different sorts of clauses and their position.

2.1.1. Extraposition vs. base-generation.

Examining dependent clauses in the FF is also to take a side in the controversy "base generation or extraposition?". In order to be able to answer this question in a motivated way, I will first distinguish five kinds of dependent clauses. These are:

- (i) attributive clauses linked to an NP (ex. (2));
- (ii) argument clauses (ex. (3));
- (iii) result clauses (ex. (4));
- (iv) comparative clauses (ex. (5)), and
- (v) adverbial clauses (ex. (6)).

- (2) Ich habe viele Leute gesehen, die sich verlaufen hatten.
(I have many people seen who had lost their way)

- (3) Er behauptet steif und fest, daß er Sie nicht kennt.
(he claims very decisively that he doesn't know you)

17) Er ist so besoffen, daß er nicht mehr stehen kann.
(he is so pissed that he can't stand on his feet)

(5) Er hat mehr gegessen, als wir erwartet hatten.
(he has more eaten than we had expected)

(6) Sie lachte, ohne daß sie wußte warum.
(she laughed without that she knew why)
She laughed without knowing why.

I will have little to say here about the fifth type. I assume that adverbial clauses are just like adverbs in that they may be generated anywhere in the clause, also in postverbal position (cf. the section on adverbs in Scherpenisse (1983)). This leaves me with the first four types to account for. I will assume that of these four types, only the attributive clauses linked to an NP in the clause are derived by extraposition. Types (ii), (iii) and (iv) I consider base-generated. <4> How can this assumption be motivated?

First of all, observe that there is a trend in recent generative literature to avoid transformational derivation as much as possible. A transformational analysis is only pondered when there is substantial evidence for movement. In other cases, base generation should always be considered possible.

Second, the German data themselves indicate movement in the case of attributive clauses and base generation otherwise. To begin with, I consider the possibility of having split antecedents an indication that there can be no movement. This possibility is given in the case of result clauses, but not in the case of attributive clauses (Gueron & May (1984: 2)):

(7)a Er hat so vielen Leuten so viel Unsinn erzählt, daß
niemand mehr durchblickt.
(he has so many people so much nonsense told that no-one
sees through anymore)

b *Ein Mann redete mit einer Frau, die einander mochten.
(a man talked to a woman who liked each other)

As noted by Gueron & May (op. cit.), there is a minimal contrast between the following pair of sentences:

(8)a Ich erzählte ihr, daß so viele Leute da waren, daß ich
Maria nervös machte.
(I told her that so many people were there that I made
Mary nervous)

b Ich erzählte ihr, daß viele Leute da waren, die Maria
nervös machten.
(I told her that many people were there who made Mary
nervous)

In (8)a, coreference is possible between ihx and Maria, in (8)b ihx and Maria cannot be coreferent. This is explained on the assumption that result clauses are base generated at the end of any S (in this case, the top S) so that Maria is not c-commanded by the pronoun in (8)a, attributive clauses, on the other hand, are extraposed from within the NP they modify and adjoined to the next VP or S, with both possibilities, Maria would be c-commanded by the coreferent pronoun in (8)b, which is a Binding Theory violation: hence the obligatory disjoint reference.

2.1.2. Attributive clauses and result clauses.

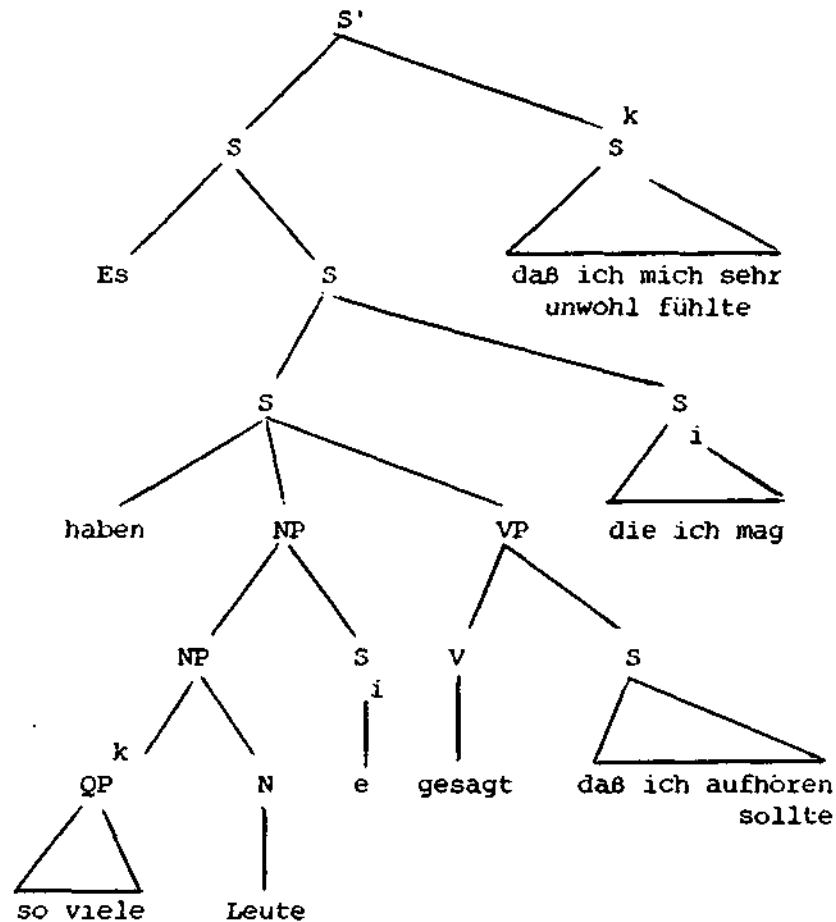
I will now discuss the exact structure of a fairly complex sentence, (9). Having argued that result clauses are base-generated under S and that attributive clauses are extraposed from NP and adjoined to a VP or S node, we now address the question of the order of dependent clauses when there are more than one. To do this, I have constructed an example with an object clause, an extraposed attributive clause and a result clause. Unusual though such a construction may be, it is nevertheless judged grammatical by some native speakers I consulted, and, what is more, they confirmed to me that the three dependent clauses are only possible in the order indicated: any other permutation yields ungrammaticality. The example is:

- (9) Es haben so viele Leute gesagt, daß ich aufhören sollte,
 die ich mag, daß ich mich sehr unwohl fühlte.
 (it have so many people said that I stop should that I
 like that I myself very uncomfortable felt)
 So many people said I should stop it who I like that I
 felt very uncomfortable.

That the three clauses have to occur in the order indicated forces us to conclude that the result clause has to be base generated one level above S, i.e. as a daughter of S' (= INFL', cf. Ch. 1 on the sentence structure assumed <5>). That is, the base rules must be supplied with a rule (10). This rule can be viewed as an expansion of the Topic Introduction rule of Ch. 2, that also uses a level of S' (cf. chapter 2). (9) has to be assigned the structure (11), then.

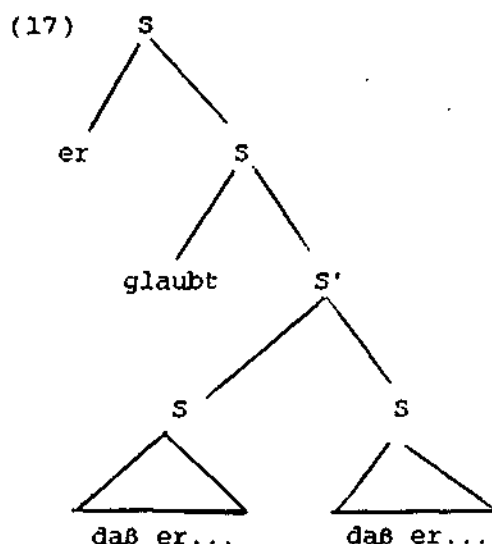
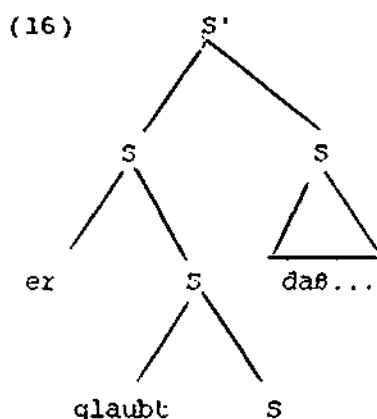
- (10) S' --> (TOPIC) S (S)
 result

(11)



Having established this structure, we can work out one more difference between attributive clauses and result clauses: attributive clauses obey a strict locality constraint in the sense of Koster (1978), whereas result clauses do not:

- (12)a Ein Kassierer hat einigen Besuchern gesagt, daß kein Platz mehr war, über die er sich ärgerte.
(a cashier had told some visitors that there wasn't any more room about whom he annoyed himself (= got upset))
- b *Ein Kassierer hat einigen Besuchern gesagt, daß kein Platz mehr war, der sie nicht ausstehen konnte.
(a cashier has told some visitors that there wasn't any more room who couldn't stand them)
- c So viele Kassierer haben einigen Besuchern gesagt, daß kein Platz mehr war, daß der Saal halbleer war.
(so many cashiers told some visitors that there wasn't any more room that the auditorium was half empty)



When a result clause is at the highest level, it may be linked to two elements in two different S'es; consider the contrast between (18) and (19):

- (18) Er glaubt so stark daß er so genial sei, daß wir ihn
besser in Ruhe lassen.
(he believes so strongly that he is such a genius that
we had better leave him alone)

- (19) *Er glaubt so stark daß er so genial sei, daß er jedes
Problem lösen kann.
(he believes so strongly that he is such a genius that
he can solve every problem) <6>

2.1.3. Comparative clauses and other clause types.

We will now consider attributive clauses, object clauses and comparative clauses in some more detail. To begin with, note that attributive clauses may either be adjoined to VP or to S; adjunction to VP is given when the NP is not in subject position. We can see this by looking at VP-preposing contexts (not acceptable in all dialects of German):

- (20) Leute angerufen die weiter weg wohnen habe ich noch
nicht.
(people phoned-up that farther away live have I not yet)
I have not yet phoned up people living farther away.

This also explains the contrast between (21)a and b, cf. (8) above and Gueron & May (1984):

- (21)a daß sie so vielen Leuten über das Konzert erzählte,
daß Maria Johann nervös machte
(that she told so many people about the concert that
Mary made John nervous)

- b daß sie vielen Leuten über das Konzert erzählte, die
Maria nervös machten
(that she told many people about the concert that made
Mary nervous)

On the assumption of adjunction to VP in (21)b, Maria is there c-commanded by she, so that the coreferential reading is out.

Next, consider the following evidence that object S_{es} are base-generated. An object sentence always precedes and never follows an attributive clause belonging to the same S, witness (22):

- (22)a *Sie hat vielen Leuten erzählt, die sie ärgerten, daß
kein Platz mehr war.
(she has many people told who annoyed her that there
wasn't any more room)
- b Sie hat vielen Leuten erzählt, daß kein Platz mehr
war, die sie ärgerten.

If the object clause is base-generated under S and the attributive clause is extraposed, the contrast in (22) is accounted for: there is no way to derive the order in (22)a, assuming Chomsky adjunction to be the only possible adjunction type (see Chomsky (1981: 141 fn. 39)).

Turning, now, to comparative clauses, we are forced to conclude that they, too, are base-generated. They may be linked to more than one element ((23)a) and they may be linked to an element in a syntactic island ((23)b):

- (23)a Es sind mehr Aufsätze in mehr Sprachen erschienen, als
ich erwartet hatte.
(there have more articles in more languages appeared
than I had expected)
- b Es sind Vorlesungen in mehr Sprachen abgehalten
worden, als ich spreche.
(there have been given lectures in more languages than
I speak)

The fact that comparative clauses always precede result clauses indicates that they are base-generated under S rather than S':

(24)a So viele Leute haben mehr gekauft als wir erwartet
hatten, daß wir viele haben enttäuschen müssen.
(so many people have bought more than we had expected
that we had to disappoint many (others))

b *So viele Leute haben mehr gekauft, daß wir viele haben
enttäuschen müssen, als wir erwartet hatten.
(so many people have bought more, that we had to
disappoint many others, than we had expected)

So it seems we can maintain our initial statement that only
attributive clauses are extraposed. There are no indications
for movement in the other cases.

2.2. The freezing effect.

Wexler & Culicover (1980) formulated the Raising
Principle, which states that a constituent that is once moved
becomes "frozen", i.e. it may not be analyzed by any further
transformation. The constituent may itself be moved a second
(and third etc.) time, but no material may be moved out of
it. This freezing effect should thus be observable in the
case of attributive clauses in German. And indeed, any
movement out of such a clause is prohibited, see e.g. (25).

(25) *Was hast du viele Leute gesehen, die aßen?
(what have you many people seen who ate)
What did you see many people eating?

But it seems to be a general property of dependent clauses
that no material may be moved out of them into higher
clauses; that is, this effect should not be ascribed directly
to the freezing rule. I will therefore postpone a further
illustration of the rule to § 3.4.

This concludes our discussion of dependent clauses in
the Final Field.

3. Other constituents in the Final Field.

3.1. Introduction.

What other constituents are to be found in the Final
Field? Actually, practically any constituent may appear
there, but it turns out that this often leads to highly
marked structures. I will exemplify this in the next
subsection, where NPs in FF will be discussed.

Relatively unmarked in FF are PPs and adverbs. Again, I
will not deal with the case of adverbs, as I assume that they
may be generated freely throughout the sentence, also in the
FF. In subsection 3.3, I will discuss the case of PPs in the

FF at some length. Finally, in 3.4 I will return to the freezing effect introduced in 2.2. It will be seen that the freezing effect is observable with PPs in FF, at least in Dutch.

3.2. NPs in the FF: the marked cases.

The cases where NPs are found in the FF are all somehow marked. The normal situation is that an NP may not be extraposed. This can easily be shown in German as well as Dutch:

- (26) *dat ik in de tuin zag een man (Dutch)
(that I in the garden saw a man)

The configurations in which NPs are found in the FF are basically the following (examples will be taken from Dutch):

- (i) Heavy NP Shift (see ex. (27));
- (ii) NPs connected to an element in the sentence (28);
- (iii) stylistically highly marked contexts (29).

- (27) Zojuist is binnengekomen de sneltrein uit richting
Amersfoort.
(shortly is arrived the intercity train from direction
Amersfoort)

- (28) Ik kan 'm niet uitstaan, die idioot. (cf. Altmann 1981)
(I can't stand him, that idiot)

- (29) Doe weg dat boek! (see Geerts et al. (eds.) (1984:
(do away that book) 1024)
Put that book away!

Heavy NP Shift occurs in environments comparable to English. Cases like (28) are not really cases of extraposition. We may consider the coreferent expression (in this case the pronoun 'm) base-generated in S and the NP base-generated in the FF. Thus, such constructions are stylistically marked, as is the topic construction (see chapter 2). They are used to foreground (to focus upon) the NP. Exclamations like (29), finally, are highly marked in that they (a) only occur in the imperative form, (b) only are grammatical as exclamations, (c) are missing from German, witness (30):

- (30) *Setz ab diesen Hut!
(take off that hat)

It thus turns out that the contexts where NPs are found in the FF are all marked. In the next subsection, we will see that the case of the PP is quite different.

3.3. PPs in the FF: linking conditions.

3.3.1. Preliminaries.

I now turn to PPs in the FF. First, some examples from German:

- (31) Wir sind schon oft spaziert über diese Brücke.
(we are already often walked over this bridge)
- (32) daß er oft vor seinem Fenster stand am Nachmittag
(that he often at his window stood in the afternoon)
- (33) Es ist ein Buch erschienen über Grammatik.
(there has a book appeared on grammar)

(31-33) show the three typical configurations in which PPs are found in the FF: prepositional objects (31), adverbial PPs (32) and attributive PPs belonging to an NP in the clause (33). Prepositional objects may generally be extraposed (as noted above, in colloquial German); adverbial PPs are in fact comparable to adverbs and adverbial clauses, which I suppose may be generated freely anywhere (cf. Scherpenisse (1983) and above). Attributive PPs may not be generally extraposed, witness (34):

- (34) *Ich habe das Buch verloren über Grammatik.
(I have that book lost on grammar)
I lost that book on grammar.

This leaves us with two questions to be answered: first, why are PPs less marked in the FF than NPs?, and second, what are the conditions governing extraposition of a PP from an NP it modifies?

As to the first question, this is easily answered in the theoretical framework of the Government/Binding theory. The difference between NPs and PPs is that NPs must be Case-marked, whereas PPs contain an NP that is Case-marked correctly by the preposition. So as long as we do not take the PP apart, i.e. move the preposition away from the NP or vice versa, the Case Filter will not be violated. This implies that we can move PPs around freely as long as we do not violate other rules or restrictions. NPs, on the other hand, must occur in an environment suitable for Case-marking, which means that they may only be moved to certain well-defined operator positions from which they c-command their trace in their original position. Furthermore, the rule of Heavy NP Shift operates under certain stylistical conditions, among which the restriction that "nonheavy" NPs may not be moved by this rule. I assume that these considerations suffice to account for the difference in markedness between NPs and PPs. <7>

The second question posed above will be addressed in the next subsection.

3.3.2. Conditions on PP extraposition from NP.

Gueron (1976, 1980) has studied extraposition of PPs from NPs in some detail. We will investigate here to what extent the rules she has formulated apply to German and Dutch, respectively.

First, let me try to duplicate some examples from Gueron (1976). I will attempt to draw rules and principles from the examples as I go along.

To begin with, consider the definiteness effect:

- (35)a Es ist ein Buch erschienen über Chomsky.
(it has a book appeared about Chomsky)
- b *Das Buch ist erschienen über Chomsky.
(the book has appeared about Chomsky)
- c ?Es ist das Buch erschienen über Chomsky.
(it has the/that book appeared about Chomsky)

The situation in German is complicated by the es insertion rule. The expletive pronoun es (cf. chapter 2) is almost obligatorily inserted when the subject is indefinite as in (35)a, but it may also be inserted with a definite subject, as the variants (35)b,c show. Es insertion with definite subjects leads to a special interpretation. Whereas the sentence without es, (35)b, simply refers to "the" book about Chomsky, without special emphasis, (35)c has as its preferred interpretation one in which das is used demonstratively, meaning "that". The sentence may be paraphrased roughly as "the book about Chomsky has appeared, you know, the one I told you about". This, however, leads to a difference in grammaticality. (35)b, where the article is used in its nondeictic sense, is ungrammatical, whereas (35)c, where the article is used deictically, is not impossible. This is a difference also described by Gueron; in English, however, the two uses are not distinguished syntactically; in German, they correspond to two syntactic patterns. There are even dialects of German in which the two uses of the definite article correspond to two different FORMS. <8>

These facts can be related to the focus distribution of the sentence. NPs with a definite article used nondeictically are not suitable for focus interpretation, whereas NPs with the deictic article are typically in focus. This is expressed in German by a ban of NPs-in-focus from the Initial Field. The contrasts in (35) cannot be transferred directly to Dutch, because in that language there is an absolute ban on the expletive element (er) in sentences with a definite subject. So, in Dutch we have:

- (36)a Er is een boek verschenen over Chomsky.
(there is a book appeared about Chomsky)

- b Dat/*Het boek is verschenen over Chomsky.
(that/*the book is appeared about Chomsky)
- c *Er is het/dat boek verschenen over Chomsky.
(there is the/that book appeared about Chomsky)

Whereas (36)b represents the standard judgment for Dutch, I must add that in the speech of many Dutchmen, including myself, there are virtually no restrictions on PP extraposition from NP. Below I present some examples, the English equivalents of which are all ungrammatical; they are, however, possible in my speech:

- (37) Er viel een boek op de grond van Vestdijk.
(there fell a book on the floor by Vestdijk)
- (38) Mensen hebben mij opgebeld met groene ogen.
(people have phoned me up with green eyes)
- (39) Er arriveerde een boek op een laat tijdstip van
Couperus.
(there arrived a book at a late hour of Couperus)
- (40) Het antwoord is moeilijk op die vraag.
(the answer is difficult to that question)

I therefore will not concentrate on Dutch in the rest of this subsection; probably, a rule generalization is going on here (cf. Scherpenisse (1983)). Instead, I will look at German and see if the rules formulated by Gueron apply there.

Gueron gives the following rules (1976: 53f.; somewhat simplified here):

- (41) INTERPRETATION RULES FOR EXTRAPOSED PP:
I. PP = complement of V;
II. PP = complement of the focus NP.

"Focus" is the most-stressed constituent of S; any unstressed NP is called a "theme". Furthermore, a "predication S" is defined as a sentence in which the subject is a theme and the focus is in VP, whereas a "presentation S" indicates a sentence with a focus but without a theme. In Gueron (1980: 651) these definitions are given in a somewhat more precise form. A predication S is there defined as an NP-VP structure at LF, whereas a presentation S has the following LF:

- (42) (V (NP ... e))
S i i

Furthermore, the following rules are assumed to apply:

- (43) 1. Mark the last argument in the c-command domain of the verb "focus of S".
 11. Mark the VP "focus of S".
 111. Mark the PP to the right of S "complement of the focus NP".

These rules are supplemented by interpretive rules. I will now examine two of Gueron's examples, translated into German. I will avoid the pronoun es for the reasons mentioned above. Consider (44).

- (44)a Ein Mann erschien vor uns aus Indien.
 (a man appeared before us from India)
 b *Ein Mann starb vor unseren Augen aus Indien.
 (a man died before our eyes from India)
 (cf. Gueron 1980. 651f.)

(44)a, which is a presentation S, must be given the logical form (45)a; (44)b, being a predication S, has an LF which is identical to its S-structure ((45)b):

- (45)a (erschien ((ein Mann (vor uns e)) aus Ind.))
 S S S VP 1
 b ((ein Mann (vor unseren Augen starb)) aus Ind.)
 S S VP

In presentation Ses like (44)a, corresponding to LFs in which the verb has been adjoined to S, the last argument in the c-command domain of the verb is the subject NP, which can therefore be the focus NP by (43)1. In predication Ses, on the other hand, only an NP in the VP or the VP itself can be the focus of the sentence; therefore, according to the Gueron rules, aus Indien cannot be related to ein Mann in (44)b. This accounts for the contrast in (44).

It seems, then, that Dutch allows the generalization (46), whereas German obeys Gueron-type rules connecting PP extraposition to the focus structure of the clause.

- (46) Adjoin any PP from NP to the rightmost S bracket.

The general picture in German is that the rules in (43) are obeyed; the equivalents of the Dutch examples (37-40) are excluded.

This completes our treatise of PP extraposition from NP in German.

3.4. The freezing effect.

I will conclude this chapter by saying something about the freezing effect with PPs in the FF. The freezing effect is caused by what Wexler & Culicover (1980: 137-144, 335-343) dub the Raising Principle. It states that any constituent that has been moved by a transformation cannot be analyzed by any further transformations. This effect is beautifully displayed in a Dutch construction with s.c. pronominal adverbs, i.e. words of the form daarvan ("therefrom", meaning "from that"). These pronominal adverbs can be postposed to the FF, as they are PPs. But whereas the two parts of a number of pronominal adverbs may be split syntactically in preverbal position (i.e. in the MF), this separability disappears in extraposed position. Cf. the following sentences.

- (47)a Ik heb iets daarover gehoord.
(I have something thereabout heard)
I've heard something about that
- b Daar heb ik iets over gehoord.
(there have I something about heard)
- (48)a Ik heb iets gehoord daarover.
(I have something heard thereabout)
- b *Daar heb ik iets gehoord over.
(there have I something heard about)

This can be attributed directly to the freezing effect. The PP is analyzable by a transformation, daar preposing, in (47)b, because it is in its base-generated position. Applying daar preposing to (48)a leads to the ungrammatical (48)b: in (48)a, the PP has been moved out of the MF by the PP extraposition rule discussed in the previous subsection. This means that it can only be moved as a whole, resulting e.g. in (49), which may be transformationally derived from either (47)a or (48)a:

- (49) Daarover heb ik iets gehoord.
(thereabout have I something heard)

Unfortunately, the freezing effect is not observable in standard German in the same way, because pronominal adverbs may not be split. In some northern German dialects, however, splitting is found just like in Dutch. In those dialects the grammaticality pattern is the same in word-by-word translations of (47-49).

In addition to that, some constituents with directional adverbs like hinauf "up" are separable even in standard German and also show the freezing effect:

- (50)a daß wir den Hügel hinaufklettern
(that we the hill up-climb)
that we're climbing up the hill
- b Den Hügel sind wir hinaufgeklettert.
(the hill are we up-climbed)
it was up the hill that we were climbing
- c Den Hügel hinauf sind wir geklettert.
(the hill up- are we -climbed)
- (51)a ?daß wir klettern den steilen Berg hinauf
(that climb the steep mountain up)
that we're climbing up the steep mountain
- b *Den steilen Berg sind wir geklettert hinauf.
(the steep mountain are we climbed up)
it was up the steep mountain that we were climbing

The contrast between (51)a and b is due to the freezing effect. (51)a, however, is doubtful in the first place, because of the general tendency to not extrapose PPs in the standard language.

This concludes our treatise of phenomena in the German FF.

4. Conclusion.

In this chapter, I presented an analysis of some phenomena connected with the Final Field (FF) in German. Of the constituents found in the FF, I treated two in greater detail: dependent clauses and PPs.

As far as clauses are concerned, I have established that all dependent clauses are base-generated with the exception of attributive clauses; these are extraposed from the NP they modify, I argued. The different positions of the various clause types were investigated.

PPs, I argued in section 3, may be freely postposed into the FF. Attributive PPs modifying NPs, however, are subject to a number of semantic restrictions discovered by Guéron (1976, 1980). In Dutch extraposition of PP out of NP seems to be virtually unrestricted.

What this adds up to is a common restriction for both cases: elements that modify an NP may not be moved freely but are subject to a number of restrictions. Elements modifying other constituents are much freer. This can be seen by considering result or comparative clauses as opposed to attributive clauses, and by comparing adverbial PPs to attributive NPs. Again, we have found that the distinction between movement and coreference is useful, in that it allows for the formulation of the differences described in this chapter.

Footnotes.

1. For the Topological Fields Theory in general, see Drach (1937), Boost (1955), Griesbach (1960) and Engel (1970). For a comparison between this theory and EST, see Olsen (1982). For a detailed analysis of the positions in the Initial Field see Scherpenisse (1984). For an analysis of scrambling in the Middle Field, see Scherpenisse (1985).
2. Cf. Koster (1975), Thiersch (1978).
3. For a comprehensive survey of this verb fronting rule, cf. Den Besten (1977).
4. Cf. Baltin (1978, 1982, 1984), Reinhart (1980) for other views on adjunction sites and base generation.
5. The reader of this issue of GAGL will please refer to the previous article for some remarks about this sentence structure.
6. (19) is ungrammatical only in the reading where the dependent clause is a result clause belonging to the embedded sentence which is itself an object clause of the matrix verb glauben. The other reading, i.e. the interpretation that the belief of being a genius causes the problem-solving capacity, is of course grammatical.
7. It also accounts for the fact that NPs may only be generated to the left of the clause-final V, whereas dependent clauses may be generated also to the right of V: Clauses are not subject to the Case Filter.
8. Ebert (1970) reports on the two different definite articles found in the Föhring dialect of Northern Germany. The a-article refers specifically to an entity that is known without further explanation, whereas the d-article deictically refers to something in the context.

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