

obscures the application of the usual tests for constituency, which
 TVP fails.

Gazdar and Sag(1980) reconstruct the notion TVP rather felicitously in
 their own theory, Generalized Phrase Structure Grammar. GPSG allows that
 there may be a rule such as (9), which defines membership in a category
 never exploited in the language:

- (9) <4, [TYP V NP], V'(NP')>

There may be no rule introducing a TVP node in the entire grammar. This
 doesn't render rule 43 in (9) otiose, however, since GPSG allows that rules
 may be generated from other rules via the metarules, such as (10):

- (10) <n, [TYP V X], μ > + <n, [P V NP X], μ(NP') >

Metarule (10) says that, for every rule of the form specified on the left
 side of the arrow, in this case one admitting TVP nodes, there is also one
 of the form specified on the right, in this case admitting VP nodes. Rule
 (9) defines membership in a category which never appears in the structural
 descriptions of sentences. For this reason, Gazdar and Sag(1980) suggest
 the term "phantom category." The elements in such categories might
 derivatively be referred to as "phantom constituents," except, of course,
 that they never occur.

I suggest that a similar approach be applied to German syntax.

- (11) <11, [PVP NPacc V], V'(NPacc) > : erzählen, schenken,...

we allow that a category of partial verb phrases lacking dative complements
 exists. Normally, the elements of this category do not appear as
 constituents, because the rule generating this category is subject to a
 general metarule (12):

- (12) <n, [PVP Y V], μ > + <n, [(P)VP X Y V], μ(X') >

(The result of applying (12) to a PVP rule may result in another PVP rule,
 if further complements are still lacking. If no further complements are
 lacking, we derive a VP rule. Thus the parenthetical 'p' on the right
 side of the arrow in (12) is applying (12) to (11), we derive (13):

- (13) <11, [VP NPdat NPacc V], V'(NPacc)(NPd') >

In which there is no NPacc + V constituent. This is the normal course of
 affairs. The derived rule (13) may be used to expand the VP node in
 trees such as (8a).

Fronting of the more common sort, which we saw in (1a) - (1d) is not
 difficult to handle in this system. Such sentences consist of two main
 constituents - the fronted element and the rest of the sentence. Rule
 (14) admits the latter:

- (14) <n, [VP ...Y...], μ > + <n, [CVP/Y ...NPhom...], μ(X') >

Let's first examine the features. On the left side of the arrow, we
 note that the rule is operant only in main clauses, thus '+MC,' and that
 the element to be fronted may contain neither finite verbs nor clitics.
 On the right side of the arrow we note that a nominative (subject) NP
 has taken the place of the constituent which is to appear fronted. It
 must then agree in person and number with the finite verb of the VP.
 (The order of elements in the VP will be specified independently.)
 I shall ignore semantics here.

- (15) <11, [CVP/NPd NProm NPacc V], λxV'(NPacc)(x)(NPn') >

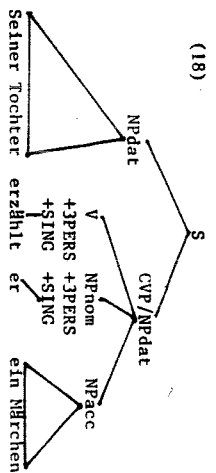
Given appropriate specifications of tense and number, (15) allows the
 generation of such VP-like constituents as *erzählt er ein Märchen*. We
 need only add a rule which combines these VP-like constituents with
 the fronted elements. This is given in (16):

- (16) <100, [ε X CVP/X], CVP/X'(X') >

Rule 100 allows any constituent X to be combined with a CVP lacking X
 in order to form a sentence. In fact (16) is a rule schema; one of
 its instances is (17):

- (17) <100, [ε NPdat CVP/NPd], CVP/NPd'(NPd') >

This, together with (15), allows the generation of (18):



Ignoring details, this treatment of German topicalization is the same one
 proposed in Uszkoreit(1982). I should now like to add an account of how
 the fronting of sequences of constituents may be treated, i.e. how the
 sentences in (5) may be generated.
 As argued already, these are elements of categories which are not
 (normally) found in the structural descriptions of German sentences.
 We might, following Gazdar and Sag(1980), have regarded them as
 "phantom categories." It would now appear that what we first regarded
 as phantoms are not entirely creatures of the shade, will-o'-the-wisps
 that flee when sought. Rule (19) sanctions their transcending from
 the nominal into the phenomenal world:

- (19) <n, [PVP ...], μ > + <n, [(P)VP X PVP], μ(X') >

(19) is best understood as an alternative to (12). Where (12) adds an element into a "fiat" constituent, (19) adds an element while preserving the original "demphantom," creating a more contoured VP. (19) is strong; it recognizes the constituent ein Märrchen erzählen in both (20) and (21).

(20) Ein Märrchen erzählen kann er ihr
 a story tell can he to her

(21) Er kann ihr ein Märrchen erzählen
 of course, has another analysis as well, in which ihr, ein Märrchen, and erzählen are sisters under the VP node. The existence of the alternative analysis makes this one less noticeable. It's entirely plausible nonetheless. 3)

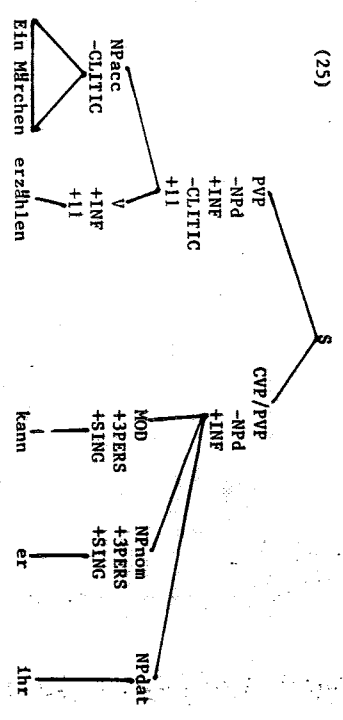
Metarule (19) may be applied to rule (11) to derive (22):
 (22) < 11, [VP NPd PVP], PVP'(NPd') >
 -FIN
 -CLITIC
 -NPd

This rule is not directly subject to metarule (14), which forms the VP-like constituent lacking an element which is to be fronted: there is no place for a finite verb in (22), and so metarule (14) cannot apply. Rule (22) may be manipulated by a further metarule adding modals (which will not be formulated here); this yields (23) to which (14) may be immediately applied, producing (24):

(23) < 11, [VP MOD NPd PVP], λx MOD'(PVP'(NPd'))(*) >
 +FIN
 -FIN
 -CLITIC
 +INF
 -NPd
 +3PERS +3SING +SING
 -CLITIC
 +11
 +3PERS +3SING

(24) < 11, [CVP/PVP MOD Npnom NPd], λx_t(PVP') MOD'(X(NPd)(Np_h)) >
 +3PERS +3SING +SING
 +11
 +3PERS +3SING

And (24), together with (17), allows the generation of the tree in (25):



Advantages of this Analysis

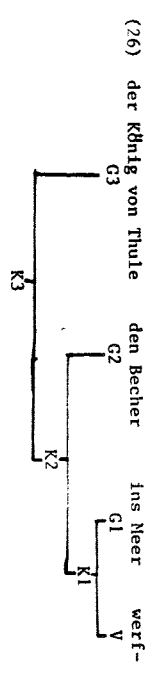
There are several advantages to this analysis. Since it assumes that partial verb phrases are formed by adding one complement at a time to verbs, it explains the generalization noted by Hoberg(1981:181), that every sequence of fronted elements must contain a verb. 4)

Second, the analysis makes a number of testable predictions about partial verb phrases, especially about their combinability. Third, the analysis is reasonably parsimonious about fronting. According to this analysis, non-finite partial verb phrases are fronted by the same mechanism that other constituents are, namely rule 100, given in (17). The present treatment preserves not only the generalization that only single constituents may be fronted, but also the unified nature of fronting. Treatments which don't analyze sequences of preverbal elements as constituents would lose at least the first, but more likely both of these generalizations.

Could one gain these generalizations without employing the demphantom categories of partial verb phrases? --Yes, in at least one way. One could employ a "restructuring transformation," which could create the frontable constituents from flat VP structures. This would give up the generalization that transformations don't create structure, and, in order to block e.g. (7) (repeated here for convenience), it would require both a rigid underlying order of elements and an ordering of transformations:

(7) * Seiner Tochter erzählen kann er es
 IND OBJ INF FIN
 his daughter tell can he it
 Er kann es seiner Tochter erzählen

This is hardly attractive. Equally well, one might generate trees with "phantoms," such as those in (8), but would employ a restructuring transformation to create flat VPs out of these. This would obviate the need for the metarule in (12), but would essentially repeat the present analysis in a less restrictive framework. The "demphantoms" remain. One can find a very near parallel to the present conception of German clause structure in the work of the French Germanist, Jean Fourquet. One of his structures is repeated in(26) for comparison:



(Cf. Fourquet(1971:139))

Conclusion

Poetereists spend most of their existence as phantoms, shunning the light of day and seldom rearing their hoary visages even on the blackest of winter nights. Like most supernatural beings, however, this is a matter of choice, not destiny. They are fully capable of passing from their phantom realm into our physical universe.

Nonfinite partial verb phrases are poltergeists. They are not normally to be found in the analysis of German grammar, but they can --and do-- appear in isolation in a rare sort of fronted construction. We dare not exorcise them from the linguistic ontology.

NOTES

- 1) These restrictions do not hold for entire finite clauses, which may be fronted. Dass er's ahnen würde, wollten wir verhindern. This may be handled e.g. by simply disallowing the features on dass-clauses.
- 2) My intended use of the ID/IP format may be mentioned, but not explicated here. Gazdar and Pullum(1981) contain details.
- 3) It is difficult to prove that ein Mädchen erzählen might be analyzed as a constituent in (21). It may be conjoined with like sequences of constituents (cf. Er hat ihr ein Buch geschenkt und ein Mädchen erzählt), but this might be regarded as a case of nonconstituent conjunction.
- 4) Hoberg(1981:181) notes apparent counterexamples to this generalization, but these appear to be cases of lexicalization or implicit (and stylistically marked) conjunction.
- 5) Any such treatment would have to add conditions to the rule for fronting a second time, in order to allow e.g. (1b) and (1c), but block (6).

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