GAPPING CONSTITUENTS

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Contents

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In this article, I want to develop a minimalist account of the gapping construction. Gapping will be shown to be subject to a constituency restriction, requiring the gapped material to form a constituent. The proposal made by Kayne (1998) concerning the structure of the clause as involving remnant VPs will be shown to be succesfully applicable to the gapping construction. I shall present evidence, contra certain recent proposals in the literature, suggesting that gapping is to be distinguished from a number of other rules of ellipsis, such as conjunction reduction and Right Node Rasing. The theory proposed receives further support from constructions involving verb raising or clause restructuring.

1. GAPPING AND RELATED RULES

1.1. The essentials of gapping

Gapping is a rule of ellipsis that in its simplest form derives sentences like the following:

(1) John likes bananas, and Sally pears.

Gapping involves a conjunction of two XPs, where the second conjunct contains a gap, which is interpreted as identical to the verb in the first conjunct. For ease of exposition, gapping constructions will be represented as in (2).

(2) John likes bananas, and Sally ~~likes~~ pears.

Ellipsis phenomena like gapping have been dealt with in two different ways in the history of generative grammar. In the early days, it was assumed that ellipsis resulted from transformational rules of deletion. In the interpretive semantics tradition, this view was largely abandoned in favour of an interpretive approach which involved the creation of empty nodes

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that received an interpretation at the level of LF. More recently, minimalism has adopted the view that structures are built from lexical items in a bottom-up fashion through the operation Merge; therefore, any structure that arises must be licensed by lexical items. This implies that ellipsis phenomena cannot involve the creation of structure over empty terminals, but must instead result from some (late) deletion of phonological material. In line with these assumptions, I shall assume that surface forms as in (1) are derived through a deletion operation in the Spell-Out branch of the grammar. For expository purposes, this can be represented schematically for the simple case in (1) as in (3) (following Munn 1992:19, Kayne 1994, and others, I assume that conjunctions are asymmetrically structured, i.e. as [$_{\alpha}$ XP [$_{\beta}$ and XP]] rather than [$_{\alpha}$ XP and XP]):

(3) Pre-Spell-Out derivation: [$_{\text{CONJP}}$ [John [$_{\text{VP}}$ likes bananas]] and [Sally [$_{\text{VP}}$ likes pears]]]
LF-representation: [$_{\text{CONJP}}$ [John [$_{\text{VP}}$ likes bananas]] and [Sally [$_{\text{VP}}$ likes pears]]]
PF-representation [$_{\text{CONJP}}$ [John [$_{\text{VP}}$ likes bananas]] and [Sally [$_{\text{VP}}$ [$_{\text{V}^{\circ}}$] pears]]][2]

By approaching ellipsis phenomena in this way, we can dispense with interpretive or reconstructive rules at LF, which need to be called upon to provide an interpretation for empty nodes, should these be allowed to be inserted earlier in the derivation. A further advantage of such an approach is that no problems of infinite regress can arise, as these are intimately tied with the concept of reconstruction of empty nodes at LF (see Fiengo and May 1994, Vanden Wyngaerd and Zwart 1991, 1998). We return to the properties of the PF-deletion rule below. First, we need to address the issue of the restrictions on gapping.

Attempts have been made in the literature to reduce the conditions on gapping to those governing wh-movement, notably subjacency (cf. in particular Neijt 1979, but also Koster 1978, 1998 and Hankamer 1971). These attempts are suspect, however. First, Den Besten (1981:152), in a review of Neijt (1979), notes that the parallelism between gapping and wh-movement is not too strong, pointing out that, whereas wh-movement is clearly a rule that relates two positions, gapping, whether it is considered to be a deletion or an interpretive rule, is not obviously a rule that must be so construed. One could make it part of the formulation of gapping that it relates two remnants and that subjacency restricts the distance between those remnants, but as Neijt (1979:62-66) herself argues, licit gapping configurations exist with only one remnant (see the discussion surrounding (45) below for examples). A further problem for an approach to gapping in terms of subjacency is revealed by (4):

(4) *James suspected Sally, and she said (that) Sam ~~suspected~~ Max.

[2] We shall in fact argue below that the structure of gapping constructions is substantially different from the bracketing given in (3). One might further wonder whether information about constituency is available at PF; whatever the answer to that question might be, it is essential to our analysis that constituency information is available to the rules deriving the PF-representation, such as the gapping rule. This still leaves open the possibility that at PF itself all constituency information is lost.

This example reveals the extremely local character of gapping: although a case like (4) allows long wh-movement without any problem (as in *Who did she say (that) Sam suspected t?*), it does not allow gapping.[3] I shall therefore assume that subjacency plays no role in restricting gapping, and that whatever excludes (4) will also exclude the more complex cases discussed in the literature, which involve alleged violations of the sentential subject constraint, the wh-island constraint, the complex NP constraint, etc. Instead I assume that the following restrictions hold on the application of gapping:

(5) a. gapping only targets constituents
b. gapping applies to one constituent at most

The two conditions of (85) are intimately related. In fact, were it not for the presence of (5b), (5a) would be rendered vacuous: if gapping could delete more than one constituent at a time, any apparent deletion of a nonconstituent could be analysed as a case of multiple deletion of constituents. The notion of constituency appealed to in (5) is not unproblematic: for example, the work of Larson (1988, 1990) represents a view on the underlying structure of VP and the position of arguments and adjuncts which diverges from what has traditionally been assumed to be the case. Similarly, Kayne (1994, 1998) and Kayne and Pollock (2001) discard received ideas on admissible underlying structures. Both approaches postulate movement rules that alter these underlying structures, which are also different from those assumed in the more traditional approaches to constituent structure. The operation of these movement rules consequently needs to be taken into account when assessing the notion of constituency restricting gapping as in (5). In the present paper, I shall adopt the approach to constituency and movement developed in Kayne (1994, 1998) (see Den Dikken 1995 for a similar approach to question tags and heavy NP shift). One prominent property of the gapping construction is the obligatory presence of a focus accent on the remnants. Kayne (1998) analyses focus as involving attraction of the focused phrase by an (abstract) head Foc°, followed by preposing of a remnant VP. Applied to a gapping case as in (1), this yields the following derivation.[4]

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[3] Koster (1978:106) adduces (4) in support of his Bounding Condition, which also restricts wh-movement. While (4) is indeed ruled out by the Bounding Condition, the existence of long wh-movement through an empty Spec,CP then requires the introduction of an *ad hoc* stipulation (Koster's (98) on p. 87).

[4] Kayne would actually have the direct object in Spec,VP à la Larson, and adjuncts in the complement position of V. However one chooses to analyse the argument-adjunct distinction, the analysis of (6) below requires that both arguments and adjuncts be raisable to Spec,FocP. If adjuncts are uniformly generated in the complement position of V, such raising would violate Kayne's (1998:23) restriction against raising complements. However, it is obvious that adjuncts can be both negated and focused by emphasis or such elements as *even/only/too*, for which Kayne proposes a raising analysis.

(i) a. I met him not in 1961 (but in 1964).
b. I met him (even/only) in 1964 (too).

(6) ... [$_{FocP}$ Foc° [$_{VP}$ likes pears]]

Attraction to Foc°: ... [$_{FocP}$ pears$_i$ Foc° [$_{VP}$ likes t$_i$]]

Raising of Foc° to W: ... [$_{WP}$ Foc°$_j$+W [$_{FocP}$ pears$_i$ t$_j$ [$_{VP}$ likes t$_i$]]]

VP-preposing: ... [$_{WP}$ [$_{VP}$ likes t$_i$]$_k$ Foc°$_j$+W [$_{FocP}$ pears$_i$ t$_j$ t$_k$]]

At this point, the gapping operation, which is part of the process of Spell-out, takes place, eliminating phonological material in the second conjunct. The phonological material that is affected by gapping could be taken to be only the head of the raised VP (i.e. the verb), or the entire VP itself: since the VP has been emptied of the direct object, there would in actual fact be no difference between these two options in this particular case. A reason for thinking elision of a (remnant) VP might be involved here concerns the fact, noted by Kuno (1976:306), that what is deleted by gapping can be more than just the verb, i.e. may involve VP-internal material such as the direct object.

(7) My brother visited Japan in 1960, and my sister ~~visited Japan~~ in 1961.

Under more traditional approaches to the rule of gapping, one would have to assume that the rule sometimes applies to V, as in (1) above, or sometimes to something larger than VP, as in (7). Under the approach to gapping inspired by Kayne (1998), which is defended here, one can assume that gapping uniformly applies to VPs. With respect to (6), we already noted that VP-deletion was an option that yielded no results different from V-deletion; (7) can be analysed as involving the attraction to Foc° of the focused PP *in 1961*, followed by VP-preposing. Since it is not the object that is focused in (7) but the PP adjunct, the object does not raise out of VP and subsequent VP-preposing carries along the object; elision of the VP will consequently affect the object as well, suggesting that it is indeed the entire VP that is affected by the gapping operation. This derivation is represented in (8) (following Barbiers 1995, the adjunct PP *in 1961* has been merged in a position of left-adjunction to VP).

(8) ... [$_{FocP}$ Foc° [$_{VP}$ in 1961 visited Japan]]

Attraction to Foc°: ... [$_{FocP}$ in 1961$_i$ Foc° [$_{VP}$ t$_i$ visited Japan]]

Raising of Foc° to W: ... [$_{WP}$ Foc°$_j$+W [$_{FocP}$ in 1961$_i$ t$_j$ [$_{VP}$ t$_i$ visited Japan]]]

VP-preposing: ... [$_{WP}$ [$_{VP}$ t$_i$ visited Japan]$_k$ Foc°$_j$+W [$_{FocP}$ in 1961$_i$ t$_j$ t$_k$]]

The difference between the gapping of the single verb as in (1) and the gapping of the verb and its object as in (7) does not therefore derive from anything variable in the application of the gapping rule itself, which affects the entire VP in both cases, but rather from the fact that different constituents may be focused, and hence undergo movement to Spec,Foc° prior to (VP-preposing and) gapping.

We further assume, as seems reasonable, that attraction to the Spec position of Foc° only affects maximal projections, not heads. From this it follows that a verb may not be the remnant of a gapping operation, as this would necessarily involve the attraction to Spec,FocP of the V°. We thus derive the restriction (noted by Neijt 1979:114) to the effect that what is gapped needs to contain a verb.

(9) *Philosophers loathe bibliomancy and mystics prefer ~~bibliomancy~~.

The derivation of (9) would have to involve the raising of V° to Spec,Foc°, followed by preposing of the remnant VP [$_{VP}$ t_i bibliomancy] and subsequent elision of this VP. It is the first of these steps that is illicit, we argue. A different restriction on raising to Foc°, which is discussed by Kayne, is its inablity to strand prepositions. This restriction can be shown to account for the contrast (10a) vs (10b) (example from Hankamer 1973:18):[5]

(10) Charley writes with a pencil and John
a. ~~writes~~ with a pen.
b. *~~writes with~~ a pen.
c. *~~writes with a~~ pen.

Elision of a remnant VP [$_{VP}$ writes with t_i], which would be required to derive (10b), would imply prior raising of the DP *a pen* out of VP, stranding the preposition, an illicit move according to Kayne (1998:149ff). The example (10c) is ruled out because it would require raising of an N° into Spec,FocP, a type of movement which (9) showed to be disallowed.[6] The account of (10b) in terms of restrictions on P-stranding receives confirmation from various subtle contrasts both internal to English, and between English and other languages. For example, with regard to the acceptability of an example like (11b), Kayne notes that there is considerable variation in judgments, 'ranging from fully acceptable to fully unacceptable' (1998:148).

(11) a. John spoke only to Bill.
b. ?John spoke to only Bill.

[5] Hankamer rules out the ungrammatical variants of (10) by appealing to a restriction to the effect that the remnants of a gapping operation be major constituents, where a 'major constituent' of a given sentence S is a constituent either immediately dominated by S or immediately dominated by VP, which is immediately dominated by S. The present approach makes Hankamer's constraint superfluous.

[6] In fact, for some speakers (10c) is noticeable worse than (10b), a fact that we shall return to below.

In his view, the degraded status of (11b) relates to conditions on P-stranding which come into play by deriving cases of *only* focus in a way parallel to the intonational focus cases discussed above; in the derivations below (12a) represents (11a), and (12b), (11b).

(12) a. ... [only [$_{VP}$ spoke to Bill]]
Attraction by only: ... [[to Bill]$_i$ only [$_{VP}$ spoke t_i]]
Raising of only to W: ... [only$_j$+W [[to Bill]$_i$ t_j [$_{VP}$ spoke t_i]]]
VP-preposing: ... [[$_{VP}$ spoke t_i]$_k$ only$_j$+W [[to Bill]$_i$ t_j t_k]]
b. ... [only [$_{VP}$ spoke to Bill]]
Attraction by only: ... [Bill$_i$ only [$_{VP}$ spoke to t_i]]
Raising of only to W: ... [only$_j$+W [Bill$_i$ t_j [$_{VP}$ spoke to t_i]]]
VP-preposing: ... [[$_{VP}$ spoke to t_i]$_k$ only$_j$+W [Bill$_i$ t_j t_k]]

Notably the first step in the derivation (12b) would violate restrictions on P-stranding.[7] Now just as there is considerable variation among speakers with respect to the acceptability of (11b), there would appear to be considerable inter-speaker variation with respect to the elision of prepositions by gapping. Thus Steedman (1990:248) quotes (13), which is in fact completely analogous to (10b) above, as acceptable.

(13) Harry went to London, and Barry, Detroit.

The fact that we appear to find the same variation among speakers with respect to *only*-focus and gapping confirms that both constructions involve P-stranding, as in the present analysis. The analysis is further confirmed by the fact that languages which are more restrictive than English with respect to P-stranding, such as Dutch and French, are also far more restrictive than English with respect to allowing both the focus construction in (11b), as (14) reveals, and the gapping of prepositions (see (15)).

(14) a. John spoke (only) to (?only) Bill.
b. Jean a parlé (même) avec (*même) Paul.
c. Jan heeft (alleen) met (?*alleen) Piet gepraat.

(15) a. ?John talked about linguistics, and Harry, politics.
b. *Jean a parlé de la linguistique, et Marie la méthode.

[7] B. Fiengo (p.c.) notes that the contrast illustrated in (11) becomes much sharper if the *only*-phrase is preposed:

(i) a. Only to Bill did she speak.
b. *To only Bill did she speak.

This contrast can be argued to follow from Kayne's analysis, in which the sequence *to only Bill* does not form a constituent (see (12b)), as opposed to *only to Bill* (see (12a)).

c. *Jan heeft over taalkunde gepraat, en Marie politiek.

The present proposal relates all these facts by requiring that constituents focused in a gapping construction (i.e. the remnants) move out of VP prior to gapping.

The discussion of (7) above has revealed that VP-internal material, such as direct objects, can be included in the scope of the gapping operation, which applies to (remnant) VPs. Given the analysis developed we expect other VP-internal material, such as small clauses, adjuncts, and double objects, to be gappable as well. These topics will be discussed in section 2 below; before addressing these issues, however, we need to consider in some detail two other matters, which concern the nature of the constituent affected by the gapping rule, and the precise status of two related rules of ellipsis, conjunction reduction and right node raising.

1.2. Gapping and VP-deletion

If gapping involves the deletion of a VP, the question naturally arises how it differs from the rule of ellipsis known as VP-deletion.

(16) Max read a book, and Sally did, too

A number of important empirical differences between gapping and VP-deletion militate against collapsing these two rules. For one thing, VP-deletion is cross-linguistically much more restricted than is gapping, which is much more widespread. A further superficial difference, which might well be related to the previous one, concerns the presence of an auxiliary (or *to* in a nonfinite context) with VP-deletion, and its absence in gapping constructions. Second, gapping is strictly confined to conjunctions (e.g. **Felix bought a book because Max a record*) whereas VP-deletion also applies in subordinate environments (including the so-called antecedent-contained ones). Gapping furthermore has an extremely local character, as revealed by an example like (4) above, which involves one level of embedding in the second conjunct. Such contexts tolerate VP-deletion without any problem (see Williams 1977 and Johnson 1996 for further differences between gapping and VP-deletion).

(17) James suspected Sally, and Bill said that Sam did, too.

There is a construction that has properties of both VP-deletion and gapping, which is labelled pseudogapping, and which is illustrated in (18) (see Levin 1979):

(18) John kissed Mary before Harry did Sally.

Pseudogapping resembles gapping in that there is an additional 'remnant', the direct object *Sally* in (18), which corresponds to some VP-contained element different from the verb. The types of remnants that we find suggest an analytical link between gapping and pseudogapping (cf. below for discussion).[8] In other respects, however, pseudogapping patterns with VP-deletion: for one thing, the presence of an auxiliary clearly separates it from gapping. More importantly, pseudogapping occurs in subordinate environments (as revealed by (18) above), and it is not as strictly local as gapping.

(19) James suspected Sally, because Bill said that Sam did Harry.

It is therefore tempting to analyse pseudogapping as identical to VP-deletion, except that prior to VP-deletion, some constituent has been taken out of the VP, so that in effect a remnant VP is deleted. This would bring the analysis of pseudogapping very much on a par with that of gapping such has it has been developed so far. By way of illustration, consider the derivation of a case like (18), given in (20):

(20)

	... $[_{FocP}$ Foc° $[_{VP}$ kiss Sally]]
Attraction to Foc°:	... $[_{FocP}$ Sally$_i$ Foc° $[_{VP}$ kiss t_i]]
Raising of Foc° to W:	... $[_{WP}$ Foc°$_j$+W $[_{FocP}$ Sally$_i$ t_j $[_{VP}$ kiss t_i]]]
VP-preposing:	... $[_{WP}$ $[_{VP}$ kiss t_i $]_k$ Foc°$_j$+W $[_{FocP}$ Sally$_i$ t_j t_k]]

At some further stage in the derivation the auxiliary *did* is merged, which licenses the deletion of the VP in the derivation of PF. The behavior of verbs taking prepositional objects provides support for a remnant VP-deletion analysis of pseudogapping. Thus one finds the same type of speaker bound variability in judgments concerning the elision of a verb plus preposition that we found in the *only*-focus case and the gapping cases.

(21) a. John talked to Mary, after Harry did to Sally.
b. ?John talked to Mary, after Harry did Sally.

And as with the gapping construction, various types of VP-internal material can be elided along with the verb, such as small clause predicates:

(22) Mickey called Jack unreliable because Susan did Sally.

[8] Jayaseelan (1990) also suggests an analysis of both gapping and pseudogapping in terms of deletion of a remnant constituent; he differs from the current proposal, however, in assuming that a right adjunction rule extracts the nondeleted constituent out of the deleted one.

Here the elided sequence corresponds to *called unreliable*, wich can be straightforwardly analysed as cases of remnant VP deletion: after the DP *Sally*$_i$ has been raised to FocP, the remnant VP [$_{VP}$ call t_i unreliable] is deleted (see section 2 below for more extensive discussion and examples).[9]

At this point, we have established a near-total analytical parallel between gapping and pseudogapping: both involve the deletion of a remnant VP under an auxiliary. Obviously, this raises the question how the empirical differences between the two can be accommodated. One possibility that comes to mind is to try and weaken the analytical parallel between gapping and pseudogapping in some way, e.g. by assuming that a different constituent is affected in both cases. While there seems little doubt that VP-deletion and pseudogapping involve the deletion of a VP, there would appear to be some possibilities left open in the case of gapping. For example, the fact that gapping applies in languages that have V-to-I movement, such as French and Italian, in a fashion otherwise identical to English, suggests that what gets deleted is actually something larger than a VP, say AgrP or TP, as VP no longer contains the verb at the stage at which the alleged deletion of the VP takes place. A similar conclusion is inspired by evidence from Hungarian, as discussed in Brody (1995). He observes that verbal particles occur preverbally, as *fell* 'up' does in (23a), but postverbally if the object is focused (as in (23b) and (23c); capital letters indicate focus stress):

(23) a. Mari fellhívta Jánost.
Mary up-called John.ACC
'Mary called up John.'
b. Mari JANOST hívta fel.
Mary John.ACC called up
'It was John that Mary called up.'
c. JANOST hívta fel Mari.
John.ACC called up Mary
'It was John that Mary called up.'

[9] A fact left unexplained by this analysis is the contrast between finite and infinitival VPs that shows up with Pseudogapping.

(i) a. I didn't water the flowers, although Jack wanted me to.
b. *I watered the flowers, although Jack wanted me to the lettuce.

This might be related to the fact that for VP-deletion to take place with *to*, the *to*-infinitive in question needs to be dominated by a restructuring verb. This is shown by the fact that the presence of an overt *for*-complementizer renders infinitival VP-deletion as in (ia) unacceptable.

(ii) *Max watered the flowers, although Jack wanted very much for Sally to.

See section 3 below for discussion of restructuring.

Brody assumes that there is a functional projection FocP to which a focused DP raises; if the verb is finite, it must also raise, as a result of which it comes to be in a position to the left of the particle (see Brody 1995 for details). Now if we look at a case of gapping, we find that the verbal particle likewise occurs postverbally (example due to Aniko Lipták, p.c.)

(24) Peter LEVELET adott fel, Mari CSOMAGOT.
Peter letters post up Mary package

Accepting Brody's claim that the verb ends up to the left of the particle as a result of movement, this example implies that something larger than VP has been deleted in the second conjunct.

What then is the nature of this higher functional projection deleted by the gapping rule? There is some empirical evidence suggesting that it can be a projection that contains the subject at S-Structure, such as IP (see also Jayaseelan 1990; Kayne and Pollock 2001). This becomes clear upon considering such cases as those in (25), discussed in the literature (Sag 1976:265, Kuno 1976:307, Wilder 1994a:37):

(25) a. At our house, we play poker, and at Betsy's house, bridge.
b. Two days ago, John took Mary out to dinner, and this afternoon, to the movies.
c. At three, a man bought a watch, and at four, a bottle of whisky.

Here the elided part includes the subject, e.g. in (25a) the gap corresponds to *we play*, which could not be analysed as a case of deletion of a VP or AgrOP without further stipulations.[10] An account that presents itself is that cases like (25) involve the deletion of a remnant IP, i.e. one which has the focused constituents *at Betsy's house* and *bridge* taken out of it, but which still contains the subject and the verb.

(26) $[_{TopP}$ at Betsy's house$_i$ $[_{FocP}$ bridge$_j$ $[_{IP}$ we play t_j t_i $]]]$

This in turn presupposes that the FocP is in the left periphery of the clause, above IP, and that there is yet another functional projection dominating FocP. Following Brody (1995), I shall assume the latter to be a TopicP. This analysis would appear to square well with the pragmatic functions fulfilled by the remnants in gapping constructions, i.e. that of Topic and Focus, respectively.

[10] Assuming the VP-internal subject hypothesis, one could take the subject to remain inside the VP in the second conjunct, and hence get deleted along with the VP.

The approach just sketched might also give us a handle on the otherwise unexplained property of gapping, which is that it applies only in coordinations, not subordinations. The reason for this restriction would be the absence of the functional superstructure devoted to topic and focus in the left periphery of subordinate clauses. It would also explain why gapping cannot reach into an embedded clause, as in the following example:

(27) *Max plays blues, and Mick claims that Suzy ~~plays~~ funk.

If the remnants must be in the left periphery of the clause, and if gapping deletes IP, there is no way to derive this sentence.[11]

1.3. Gapping and Conjunction Reduction

Gapping needs to be distinguished from conjunction reduction (henceforth CR), an example of which is given in (28) (see also Hudson 1976, who lists some empirical differences between gapping and conjunction reduction):

(28) John likes bananas and detests pears.

The term CR implies that a reduction operation of some sort has applied in (28), be it deletion or ellipsis; this view implicitly assumes that conjunction always involves CPs (or IPs, if English main clauses lack a C-projection), and that part of the second conjunct is deleted or otherwise left unexpressed; under this view, (28) would be represented as in (29a) below, with overstriking indicating the ellipsis site. Alternatively, one could adopt the view that cases like (28) merely involve conjunction at the sub-CP level, say of two VPs, without there being any deletion or empty nodes involved, as shown in (29b). In this view, there would in fact be no rule of conjunction reduction at all (see Gazdar 1981 and references cited there).[12]

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[11] These facts are also explained by an analysis like that of Johnson (1996), which takes the verb to have been extracted in an ATB-fashion out of both conjuncts (see note 16). Since ATB does not apply in subordinating environments, the restriction of gapping to coordinate domains is accounted for. The Head Movement Constraint will rule out cases like (27), as they would require the gapped verb to raise to the position of the nongapped verb (i.e. the matrix AgrO°), past the matrix verb *claim*.

[12] A construction that could be used as an argument against the (29b) analysis involves conjunctions of an active and a passive sentence, which would involve a CSC violation (Schachter 1977:236-37):

(i) The Dodgers$_i$ [beat the Red Sox] and [were beaten t_i by the Giants].

Burton and Grimshaw (1992) and McNally (1992) argue that the CSC violation can be avoided if one assumes the VP-internal subject hypothesis, as the conjoined constituents would each contain a trace in the VP Spec position. One does not necessarily need the VP-internal subject hypothesis, however; Pollock's split INFL hypothesis will do just fine, as an example like (i) could then be taken to involve a conjunction of AgrPs, each containing a trace in Spec,AgrP.

(29) a. [$_{IP}$ John likes bananas] and [$_{IP}$ ~~John~~ detests pears]
b. John [$_{VP}$ likes bananas] and [$_{VP}$ detests pears]

One striking advantage of assuming the 'small conjunct' analysis (29b) is that it explains the forward directionality of the rule. That is, the word order in (28) mirrors that of subjects vis-à-vis their VPs in English, and more generally, word order in CR constructions mirrors that in nonconjoined sentences. If one adopts the (29a) analysis, on the other hand, we have a conjunction of two IPs, one with and one without a(n overt) subject, so that the question arises why the two conjuncts could not change places, yielding the ungrammatical (30):

(30) *[$_{IP}$ ~~John~~ likes bananas] and [$_{IP}$ John detests pears]

To my knowledge, no language allows the equivalent of (30). Under the small conjunct analysis (29b), this should cause no surprise, as the first conjunct would be a subjectless VP or IP, the former ruled out because the external θ-role is not assigned, the latter because of the way the null subject parameter is set in English.[13]

(31) *[$_{IP/VP}$ likes bananas] and [$_{IP}$ John detests pears]

For this reason, I shall here adopt the small conjunct analysis of CR. I shall further assume as a minimal restriction on CR that the conjoined elements need to be constituents.

Wilder (1994b) proposes a unification of all processes of forward ellipsis (except VP-deletion), including gapping and CR, as well as some other rules of ellipsis, into a single rule FWD ('forward', as opposed to Right Node Raising, which he labels BWD 'backward'). He adopts a PF-deletion analysis for any type of forward ellipsis; applied to CR, this means that Wilder favours the (29a) representation, contrary to our claims. Forward deletions are constrained by the following rule:

[13] In null subject languages, the equivalent of (31) is predicted to be grammatical as a conjunction of two IPs, the first conjunct having a null subject. Still, the meaning of such an example would not be equivalent to that of (28), in that the latter has one subject which distributes over two predicates, whereas the null subject case would have two distinct subjects in addition to two predicates. This is illustrated in (i).

(i)	[$_{IP}$	Quiere	bananas]	y	[$_{IP}$	Juan	odia	peras]
		he.likes	bananas	and		Juan	dislikes	pears

The (null) subject of the first conjunct is not understood to be identical with that of the second. For an argument in favour of a rule of conjunction reduction based on evidence from Icelandic, see Rögnvaldsson (1982).

(32) *Head Condition on FWD*
An ellipsis site may not be c-commanded by an overt (non-deleted) head in its domain (=conjunct)

The latter condition will rule out such deletions as the following:

(33) *John bought the book and Mary read ~~the book~~.

Conceptually attractive though this proposal may be, I believe there are some good empirical reasons to keep gapping and CR apart, and to stick to a small conjunct analysis of CR. These relate to the interpretations that are found when quantified DPs are elided. Consider the following example, due to Partee (1970).

(34) a. Few people like bananas and detest pears.
b. Few people like bananas and few people detest pears.

One finds that (34a) and (34b) have sharply diverging meanings. Formulated in terms of scope, in (34a) the quantified subject scopes over both conjuncts, whereas in (34b) the scope of the quantifier is confined to the conjunct it belongs to. These facts follow directly under the small conjunct analysis: the quantifier has syntactic scope over the conjunction (i.e. c-command), so it is little surprising that it should have semantic scope over the conjunction as well. Under Wilder's analysis of CR, however, (34a) is a case of FWD, which receives a deletion analysis as in (35).

(35) Few people like bananas and ~~few people~~ detest pears.

But given Wilder's (1994b) assumptions about the deletion process at issue, (34a) and (34b) are only distinguishable at PF, which is not a level at which semantic contrast are represented. Since (34a) and (34b) are identical at LF, there is no way of accounting for the semantic difference between the two. What is more, matters are altogether different with gapping. This can be seen in cases where a direct object is gapped along with the verb. When such an object is quantified, its scope is confined to the conjunct that the object occurs in. Thus there is no discernible semantic difference between (36a) and (36b).

(36) a. John invited some students on Wednesday and Harry on Friday.
b. John invited some students on Wednesday and Harry invited some students on Friday.

An analysis like Wilder's, which assimilates CR to gapping, is at a loss to explain the semantic difference between the two processes in terms of quantifier scope. A similar argument may be made with questions. Consider the following:

(37) a. What food does Mary love and Bill hate?
b. What food does Mary love and what food does Bill hate?

Again, (37a) and (37b) are semantically quite different: in (37a) we are dealing with a single question: we want to find out what single sort of food is such that it satisfies a double criterion, i.e. being at the same time loved by Mary and hated by Bill. By contrast, (37b) is a multiple question which invites a double answer: one sort of food which is loved by Mary, and another sort of food which is hated by Bill. Again, under an analysis that treats CR as involving deletion, (37a) and (37b) are identical at LF (see Wilder 1994b:42), so that their semantic difference is unaccounted for. Under a small conjunct analysis, (37a) involves a single *wh*-word that c-commands a conjunction, so that its status as a single question is unsurprising. In (37b) two full CPs are conjoined, yielding two full questions.

Wilder (1994a:38) makes an attempt at explaining the interpretive properties of ellipsis, essentially by assuming that ellipsis creates chains similar to movement chains. Thus in an ellipsis case like (35), the two occurrences of the subject *few people* constitute a single LF-chain which receives one interpretation. There are two reasons why this account cannot work: for one thing, it makes the questionable assumption that the effects of ellipsis are visible at LF. For another, it fails to distinguish between the various ellipsis types. On the one hand, CR does indeed involve a single chain interpretively, a fact directly accounted for by the small conjunct approach. On the other hand, gapping and, as we shall see below, Right Node Raising (RNR), have a different effect when they apply to quantified DPs: both quantifiers receive an independent interpretation, much as in their nonelided counterparts (for illustration, see example (36) above for gapping, and (57) below for RNR).

A further argument in favour of a small conjunct approach to CR involves some data discussed by Wilder (1994b:53).

(38) John reported that Mary claimed that Paul hit Sue and ___ ran away.

As Wilder notes, the ellipsis site may be understood in three different ways: the (elided) subject of the VP *ran away* may be understood as either *John*, *Mary*, or *Paul*. These readings are directly accounted for under a small conjunct approach, which assigns the following representations:

(39) a. John [[reported that Mary claimed that Paul hit Sue] and [ran away]]
b. John reported that Mary [[claimed that Paul hit Sue] and [ran away]]
c. John reported that Mary claimed that Paul [[hit Sue] and [ran away]]

Assuming the bracketed constituents to be VPs, the VP [*ran away*] in the second conjunct can be taken to be conjoined with the matrix VP, as in (39a), the intermediate VP (39b), or the most deeply embedded VP (39c) in the first conjunct. To derive these facts in a deletion analysis requires additional restrictions. Thus, apart from the representations in (40), which are taken to be the counterparts of those in (39) under a deletion analysis, one needs to exclude such ungrammatical readings as in (41).

(40) a. [John [reported that Mary claimed that Paul hit Sue]] and [~~John~~ [ran away]]
b. [John reported that Mary [claimed that Paul hit Sue]] and [~~John reported that Mary~~ [ran away]]
c. [John reported that Mary claimed that Paul [hit Sue]] and [~~John reported that Mary claimed that Paul~~ [ran away]]

(41) a. *[John reported that [Mary claimed that Paul hit Sue]] and [~~Mary~~ ran away].
b. *[John reported [that Mary claimed [that Paul hit Sue]]] and [~~John claimed [that Paul~~ ran away]]

While the relevant constraint can be formulated (see Wilder 1994b:54), it is superfluous in a small conjunct approach. There is, however, a more fundamental problem with the deletion approach, which is that the representations in (40) do not in fact accurately represent the relevant readings of (38). In particular, they are semantically different from nonelided variants of these sentences. Consider (42).

(42) a. John reported that Mary claimed that Paul hit Sue and John ran away.
b. John reported that Mary claimed that Paul hit Sue and John reported that Mary ran away.
c. John reported that Mary claimed that Paul hit Sue and John reported that Mary claimed that Paul ran away.

Particularly for (42b) and (42c), there is a rather sharp meaning difference between the elided and the nonelided variants: thus both (42b) and (42c) involve multiple reporting events, whereas (38), under any of its readings, involves only a single reporting event. These facts follow directly from a small conjunct approach (see (39)), but are unexpected under a deletion approach, as the LF-representations of the elided and the nonelided variants are identical.

A further difference between both construction also relates to their interpretation. The argument concerns 'asymmetric conjunctions' (Grice 1975, 1978). Conjoined nonstative sentences impose a temporal ordering on the interpretation of the conjuncts. This holds true if the subject is elided by CR.

(43) Max put on his coat and (he) left the room.

The normal interpretation of this sentence is that Max first puts on his coat and then leaves the room, not the other way round. Grice accounts for this property of conjunctions in terms of conversational implicature, notably the maxim 'be orderly'. In conjunctions reduced by gapping, by contrast, no temporal sequencing is implied.

(44) [$_A$ Max put on his coat] and [$_B$ Sally her jumper]

The interpretation of this sentence allows any sort of temporal ordering between the two conjuncts: A may have preceded B, or B A, or A and B might have occurred simultaneously. Even more accurately perhaps, (44) says or implies nothing about the temporal relationship between the two conjuncts; it merely states that two parallel events took place, regardless of any temporal relationship between them. This fact would appear to pose a challenge to the Gricean account of (43), in so far as the latter does not predict the absence of a temporal sequencing in (44).[14] The important point to note in this context, however, is that once more we find an interpretive difference between constructions involving CR and constructions instantiating gapping.

1.4. Conjunct movement

To conclude this section on the differences between gapping and CR, let me discuss a question relevant to the CR analysis. In some cases, the two conjuncts in a CR construction occur nonadjacently, as in (45).

(45) John bought a book yesterday, and a newspaper.

Munn (1992:19) argues that such sentences involve extraposition to the right across the adverb of a constituent β from a structure [$_\alpha$ XP [$_\beta$ and XP]]. However, rightward conjunct movement is incompatible with the assumptions on clause structure made in Kayne (1994). Reinhart (1991) defends the view that the conjuncts are separate at the outset and are joined at

[14] See Schmerling (1975) for discussion of problems relating to the Gricean account of asymmetric conjunctions.

LF. Such an analysis still relies on right-adjunction of the second conjunct, however. Neijt (1979:62-66) presents evidence against conjunct movement, and instead argues that examples like (45) are derived by gapping, with only one remnant left in the second conjunct; in fact, these examples combine CR and gapping. Neijt observes that alleged conjunct movement is subject to a number of restrictions: thus verbs are not extraposable (see also Hudson 1976:547), and the rule is inapplicable in cases which involve negation:

(46) a. *That dress has been designed by my grandma and made.
b. *John lives in London and works.
c. *John didn't win the prize and Mary.

These restrictions follow directly from a gapping analysis, as gapping always minimally affects the verb (see (9) above), and is independently impossible with negation (e.g. **John didn't win a car, and Mary a free trip*), in which case *and* needs to be replaced by *nor*, a move that also markedly improves (46c). Agreement facts also plead against an extraposition analysis:

(47) a. John and Peter *is/are ill.
b. John is/*are ill, and Peter.

A further argument against treating (45) as involving extraposition is due to Barbiers (1995), who notes that NPs accompanied by an 'extraposable' PP can be topicalised independently of the PP, but not the XPs that form a conjunction phrase.

(48) a. EEN boek$_i$ heeft Jan [t$_i$ over schaatsen] gekocht.
One book has Jan about skating bought
b. *Jan$_i$ heeft hij [t$_i$ en Marie] gezien.
Jan has he and Marie seen

This supports the idea that alleged conjunct movement is not to be assimilated with other known cases of extraposition (see Barbiers 1995 for an analysis of the latter).[15]

1.5. Gapping and Right Node Raising

[15] While Neijt's analysis easily fits into the antisymmetry framework of Kayne (1994), it does not extend to cases with the subordinating conjunction *except* (e.g. *Everyone liked the cake today, except Susie*), which would seem to require either a conjunct extraposition analysis or an LF-raising analysis along the lines of Reinhart (1991).

Postal (1974) discusses a rule which he calls Right Node Raising (henceforth RNR), which is illustrated in (49).

(49) John likes, and Sally detests, pears.

This rule shares with gapping a specific intonational pattern, with contrastive stress on the conjoined elements that are being contrasted (e.g. *John* and *Sally*, *likes* and *detests* in (49)), and absence of stress on the element that is common to both conjuncts (*pears* in (49)). Still, the rules are really quite different. For one thing, gapping results in an elision in the second conjunct, RNR elides an element from the first conjuct. This may in fact result in sentences which at first sight seem identical except for the locus of the gap.

(50) a. dat Jan een novelle las, en Piet een roman ~~las~~.
b. dat Jan een novelle ~~las~~, en Piet een roman las.
that Jan a short story read and Piet a novel read
'that Jan read a short story, and Piet a novel.'

This has lead certain researchers to claim that Gapping can apply both forwardly (50a) and backwardly (50b) (e.g. Ross 1970). Ross further observes that the locus of deletion correlates with the SVO or SOV character of the language in question. An SVO language like English, for example, does not tolerate the analogue of (50b), with the gap in the first conjunct. There are a number of arguments, however, which plead against generalising over (50a) and (50b) (see also Maling 1972, Evers 1976). First, observe that the correlation between word order and availability of backward gapping is superficial, i.e. it does not relate to underlying but only to surface word order. This can be seen in Dutch and German main clauses, which are SVO as a result of V2, and where backward gapping is barred.

(51) *Jan ~~las~~ een novelle, en Piet las een roman.
'Jan read a short story, and Piet a novel.'

This fact follows directly if one assumes that (50b) does not instantiate (backward) gapping, but RNR. It is a defining property of RNR that the right node raised element is right peripheral (see below). In an SVO order, the verb is not right-peripheral, so that it cannot be taken as RNRed. This is why (51) cannot be analysed as a case of RNR. It cannot be a case of gapping either, as there is no backward gapping. The analysis is confirmed by sentences from German and Dutch where the RNR analysis is for some reason blocked, such as the cases discussed in Evers (1976). The examples he discusses involve German subclauses in which the VP-final verb is followed by some extraposed constituent, e.g. a relative clause. This yields poor results

when the deletion site is in the first conjunct, as in (52a), though such sentences are fine with forward gapping (see (52b)).

(52) a. *weil Peter seinen Freund ~~aufsuchen wollte~~, was mich beruhigte
because Peter his friend visit wanted which me reassured
und Johann seine Kinder aufsuchen wollte, was mich amusierte.
and Johann his children visit wanted which me amused

b. weil Peter seinen Freund aufsuchen wollte, was mich beruhigte und Johann seine Kinder ~~aufsuchen wollte~~, was mich amusierte.
'because Peter wanted to visit his friends, which reassured me, and Johann his children, which amused me.'

If we wish to hold RNR responsible for the degraded status of (52a), as seems likely, it must be the case that (backward) gapping is not a possible analysis for (52a).[16]

Another argument for making a distinction between gapping and RNR appears from an example like the following (from Den Besten 1981:138).

(53) a. Jan sprak met het meisje dat de rode ~~wijn binnenbracht~~ en
Jan spoke with the girl who the red wine in.brought and
Piet sprak met de jongen die de witte wijn binnenbracht.
Piet spoke with the boy who the white wine in.brought
'Jan talked to the girl that brought in the red wine, and Piet talked to the boy that brought in the white wine.'

b. *Jan sprak met het meisje dat de rode wijn binnenbracht en Piet sprak met de jongen die de witte ~~wijn binnenbracht~~.

Embedding invariably leads to a bad result with gapping, as (53b) shows (also see (4) above). With RNR, there is no such restriction against embedding; the only thing that is required is that the right node raised element be right peripheral.

[16] The Dutch and German case further suggests that Ross' correlation between word order and directionality of gapping is not correct. This is shown by (52b), which has SOV but forward gapping. One could try to save Ross' correlation by arguing that it refers to underlying order, and that Dutch and German, and perhaps all languages, are VO underlyingly (see Kayne 1994, Zwart 1997). If Kayne's hypothesis is correct, Ross' correlation would imply that all languages only have forward gapping. Languages like Japanese, which appear to allow only backward, and no forward gapping, would then need to be reanalysed. One possibility would be to assume that Japanese has no gapping at all, just Right Node Raising. A potentially more interesting proposal is made by Johnson (1994, 1996): his idea is that gapping is a case of ATB movement of the verb. In his analysis, the impression of forward gapping derives from the fact that the landing site of the ATB-moved verb is to the left of its base position. In Japanese, by contrast, the landing site of V is to the right of its VP, which gives the impression of backward gapping. It remains to be seen whether Johnson's proposal, and indeed the very OV character of Japanese, can be made compatible with Kayne's antisymmetry framework.

A further important difference between gapping and RNR is that the former is sensitive to a structural constituency condition (see (5) above), whereas RNR appears to be a purely linear phenomenon: all that is required is that the 'shared' string be right-peripheral in both conjuncts (see Wilder 1994b:51). And although it has been claimed that RNR affects constituents only (e.g. Postal 1974, Bresnan 1974, Williams 1990, Larson 1990), many cases are attested which falsify this claim. Thus Abbott (1976), Zwarts (1986), Wilder (1994b), among others, have argued that RNR does not respect constituency. Consider the following example, a slightly modified variant of Den Besten's (53) (see also Wesche 1992, quoted in Wilder 1994b:43):

(54) [Jan heeft met het meisje [dat [de rode ~~wijn] binnenbracht] gesproken~~] en
Jan has with the girl who the red wine in.brought talked and
[Piet heeft met de jongen [die [de witte wijn] binnenbracht] gesproken]
Piet has with the boy who the white wine in.brought talked
'Jan talked to the girl who brought in the red wine, and Piet talked to the boy who brought in the white wine.'

The conclusion that a nonconstituent is the target of the RNR operation seems hard to avoid here.[17] Wilder (1994a:18) discusses a similar example in English:

(55) a. a positively and a negatively charged electrode
b. [a [positively ~~charged] electrode~~] and [a [negatively charged] electrode]

Clearly, the elided part corresponds to a nonconstituent. The conclusion that RNR applies to nonconstituents is confirmed by the fact, observed by Höhle (1991:146), that RNR allows the elision of parts of words, as shown by (56a); an analogous English example is given in (56b):

(56) a. Karl suchte den Ein___ und Heinz suchte den Ausgang.
Karl looked.for the in.way and Heinz looked.for the out.way
'Karl looked for the entrance and Heinz looked for the exit.'
b. Mark is a pre~~doctoral student~~, and Carla is a postdoctoral student.

Booij (1985) formulates a phonological condition on the targets of the RNR operation, which states that these must be possible phonological words. Such a condition would agree well with

[17] Observe that the process of clause union or restructuring, to be discussed in section 3 below, is never assumed to apply between verbs contained in a main and a relative clause, respectively. Such clause union would imply a union of the domains of the gapped verbs *binnenbracht* 'brought in' and *gesproken* 'spoken'. If such union took place, one might plausibly have argued that what is gapped in (54) forms a constituent.

our earlier finding that RNR is insensitive to structural information, but a purely linear, phonological phenomenon. The evidence from quantifed DPs moreover suggests that genuine ellipsis is involved in RNR constructions (see also Höhle 1991:148).

(57) Max has bought, but Sandra has actually read, some books on VP-ellipsis.

This sentence is semantically quite close to its nonelided counterpart, suggesting that true elision has taken place. Following Wilder (1994b), I shall assume that RNR is to be analysed as a case of PF-deletion of a right-peripheral string in the first conjunct, as in (58) (see also Kayne 1994:67, Wexler and Culicover 1980, McCloskey 1986).

(58) Max has bought ~~some books on VP-ellipsis~~,
but Sandra has actually read, some books on VP-ellipsis.

At LF, then, the sentence is identical to its nonelided counterpart, accounting for the semantic intuitions concerning (57).

2. GAPPING OF VP-INTERNAL MATERIAL

2.1. Small clauses

The claim in (5) requiring the targets of the gapping operation to be constituents is hardly standard in the literature on gapping (e.g. Jackendoff 1971, Hankamer 1971, 1973, Kuno 1976, Sag 1976, Neijt 1979, Steedman 1990, Stillings 1975, Prüst 1992, Wilder 1994a,b).[18] One important obstacle that has stood in the way of its adoption involves gapping in small clause constructions, where it would appear as if the complex consisting of the matrix verb and the SC predicate can be the target of the rule of gapping. Consider the following examples ((60)a) from Sag 1976:274 and (60b) from Jackendoff 1971:24):

(59) Niels proved a theorem wrong, and Albert an entire theory.
(60) a. Time believes Agnew to have been guilty, and Newsweek Nixon.
b. Arizona elected Goldwater senator, and Pennsylvania Schweiker.

[18] An exception is Johnson (1994, 1996); Jack Hoeksema (p.c.) further points out that the constraints mentioned in (5) are implicit in the work of Steedman, although Steedman (like Johnson) has a different concept of constituency than what is standardly assumed in generative grammar, or of the one that is being adopted here. In particular, the use of function composition could be likened to the appeal made to verb raising in the present paper (cf. below). At a certain level of abstraction, then, both Steedman's and Johnson's approaches can be viewed as parallel to the present one.

In each of these cases, the gapped constituent in the second conjunct corresponds to the complex consisting of the matrix verb and the predicate of the small clause. That is, (59) is so interpreted that Albert proved an entire theory wrong, and certainly does not imply its counterpart which would result from merely gapping the verb, i.e. that Albert proved an entire theory.

Obviously, these facts raise the question of the constituency of small clause constructions. Hoekstra (1993) considers three possibilities for representing secondary predication relationships; these are, first, the Small Clause (SC), second, coindexing à la Williams 1983, and finally, complex predicate formation (CPF) (e.g. Chomsky 1975:505-35, Reinhart and Reuland 1991:295-6, Stowell 1991, Larson 1988, 1990, Neeleman 1994, Hoeksema 1991). These three approaches are represented in (61).

(61) a. we found [$_{SC}$ John guilty]
b. we found John$_i$ guilty$_i$
c. we [found.guilty] John

A number of conclusions could be drawn on the basis of the evidence from gapping given in (59) and (60). First, one could give up the idea that gapping only applies to constituents; this is obviously a highly unattractive move from a conceptual point of view. Second, one could maintain the constituency condition on gapping in (5) and argue that facts such as those in (59) and (60) support the complex predicate formation analysis of small clause constructions (see Hoeksema 1991, Vanden Wyngaerd 1993). Neither of these conclusions is compelling under the present approach, however, which derives (59)/(60) straightforwardly as involving attraction to Spec,Foc° of the small clause subject. This yields a (remnant) constituent which corresponds exactly to the material gapped in such examples (59) and (60). The relevant derivation is depicted schematically in (63).

(62) Jack considers Sally foolish, and Sally ~~considers~~ Jack ~~foolish~~.

(63) ... [$_{FocP}$ Foc° ... [$_{VP}$ considers [$_{SC}$ Jack foolish]]]
Attraction to Foc°: ... [$_{FocP}$ Jack$_i$ Foc° ... [$_{VP}$ considers [$_{SC}$ t$_i$ foolish]]]

At this point, gapping can apply to the remnant VP (or IP), leaving the SC subject *Jack* as a remnant.

Other constituents, such as the small clause predicate, can likewise be focused and hence be the remnants in the gapping construction. The results of extracting small clause predicates to Spec,Foc° reveal subtle differences between various sorts of SC predicates.

(64) a. ?John put a book on the table, and Sally ~~put a book~~ on the refrigerator.
b. ??John considers him smart, and Sally ~~considers him~~ stupid.
c. ??You think him a liar, and I ~~think him~~ a drunk.

The contrast between the (apparently) discontinous gapping of verb and SC predicate as in (62) on the one hand, and the gapping of verb and SC subject as in (64) on the other, recalls the observation made by Kayne (1998:180) to the effect that preposing of AP and predicate nominals 'produces substantial deviance'. It would indeed appear from (64) that preposing of PPs yields significantly better results. Cases showing the impossibility of raising APs and predicate nominals discussed by Kayne include the following.

(65) a. At least one person considers every senator to be smart.
b. At least one person considers every senator smart.
(66) a. ?*They're trying to make out John a liar.
b. They're trying to make out a liar only John.

Apparently an inverse scope reading is easier to get in (65a) than in (65b). Kayne assumes that inverse scope requires overt raising of *every N* into the matrix clause (concretely, into Spec,DistP); if the quantifier remains in its clause, it cannot take wide scope. Kayne further also assumes that there are no covert movement rules which could raise the quantifier invisibly. To derive the correct word order, then, the VP *considers SC* needs to raise past the raised quantifier *every senator*. But since the SC predicate *(to be) smart* occurs to the right of the quantifier *every senator* this in turn implies that the SC predicate has raised out of the VP *considers SC* before this VP itself raises. The latter movement is apparently ruled out for the AP *smart*, but not for the VP *to be smart*, which difference accounts for the scope difference between (65a) and (65b). As far as (66) is concerned, Kayne attributes the deviance of (66a) to the impossibility of the predicate nominal *a liar* to raise out of the VP *make SC* prior to preposing of this VP. The improved status of (66b) would suggest that *a liar* can be carried along under VP-preposing.

What this analyis leaves unexplained, however, is the question why, in contexts not involving a particle, carrying along of APs and predicate nominals under VP-preposing appears to be worse than that of PPs.

(67) a. John put ($_\alpha$ on the table) only this book ($_\beta$ on the table).
b. Max considers ($_\alpha$?smart) no linguist ($_\beta$ smart). (Kayne 1998:137n)
c. Cindy considers ($_\alpha$??a liar) only her brother ($_\beta$ a liar).

The position indicated by α results from raising the bracketed constituent along with the VP, the *only/no*-phrase having been previously extracted out of it. Position β requires in addition the raising of the bracketed constituent out of VP prior to VP-raising. Again, a difference is observed between PP and AP/DP, but one that is exactly the opposite of what one would expect if APs and predicate nominals did not raise out of VP easily.

Dutch word order facts pose a further problem for Kayne's analysis. Considering the gapping facts illustrated by (64), we find that these can be reproduced for Dutch:

(68) a. ?Jan legde een boek op de tafel, en Sally ~~legde een boek~~ op de koelkast.
b. ??Jan vindt hem slim, en Sally ~~vindt hem~~ dom.
c. ??Jij vindt hem een leugenaar en ik ~~vind hem~~ een dronkelap.

This could be taken to suggest that APs and predicate nominals do not raise out of VP easily in Dutch either. However, Dutch surface order is OV (abstracting away from V2 in main clauses), a fact which Kayne accounts for by assuming that Dutch lacks the VP-preposing rule. Direct objects and small clause predicates furthermore also obligatorily precede the V; this fact could be accounted for by assuming that direct objects and SC predicate raise to a position left of V (see Zwart 1997, Koster 1994, Kayne 1998:136). This solution has the disadvantage that an account of (68) in terms of a resistance of APs against raising out of VP is impossible, as these must always obligatorily raise.[19]

2.2. Adjuncts

Evers (1975:13) presents an argument against a constituency condition on gapping as the one in (5), which is based on the observation that apparently discontinuous sequences of a verb and an adjunct are gappable:

(69) a. weil Johann auf der Terasse eine Sarabande tanzen will
because Johann on the terrace a saraband dance wants
und Cecilia ~~auf der Terrasse~~ eine Pavane ~~tanzen will~~.
and Cecilia on the terrace a pavane dance wants
'because Johann wants to dance a saraband on the terrace and Cecilia a pavane.'

[19] An alternative would therefore be to assume a Larsonian type of clause structure, which assigns the combination of verb and adjunct to a single constituent, leaving the object out, i.e. instead of having [[V DP] Adj], one would have [DP [V Adj]] (see McConnell-Ginet 1982, Larson 1988, Stroik 1990, and Kayne 1994:69, 1998, among others). No raising of SC predicates would then be required, as they would be left of V right from the start. On the other hand, this would require obligatory raising of SC predicates out of VP followed by VP-preposing in English, as SC predicates in English can never precede V.

b. weil Johann bei diesem Tanz zu mir schaute
because Johann with this dance to me looked
und ich ~~bei diesem Tanz~~ zu ihm ~~schaute~~.
and I with this dance to him looked
'because Johann looked at me during this dance and I at him.'

Two lines of defense are possible against this argument, both of which rely on the assumption that for gapping to take place, the two conjuncts need not be entirely parallel. One possible defense against Evers' argument assumes that no adjunct is gapped at all in the second conjunct of the sentences of (69). That is, the proper representation of (69a) would be as in (70).

(70) weil Johann auf der Terrasse eine Sarabande tanzen will
und Cecilia eine Pavane ~~tanzen will~~.

The question that then arises is why (69a) can be understood to be about Cecilia's wish to dance a pavane in a particular place, viz. on the terrace. However, such a reading can be assumed to be subsumed under (70), i.e. (70) leaves open the possibility that Cecilia wants to dance the pavane in a particular place, or at a particular time, or with a particular partner, etc. The sentence just happens to be vague in this respect. The fact that the place adjunct is so readily available in the interpretation of (70) can be attributed to pragmatic factors, such as the more general preference for parallel interpretation in conjoined structures (see Zwicky and Sadock 1975, Lang 1977, Schachter 1977).[20] The following example, from Hudson (1976:536), shows that subordinations also show this effect, i.e. the subordinate clause does not have the adjunct *in his study*, but it is understood from the context.

(71) He turned off the fire in his study because it was too warm.

The nongapped variants of (69) further confirm the proposed analysis:

(72) a. weil Johann auf der Terrasse eine Sarabande tanzen will und Cecilia eine Pavane tanzen will.

[20] Henk van Riemsdijk (p.c.) points out the following case:

(i) weil Johann an seinem Geburtstag eine Sarabande tanzen will
because Johann on his birthday a saraband dance wants
und Klaus eine Pavane.
and Klaus a pavane
'because Johann wants to dance a saraband on his birthday and Klaus a pavane.'

If the adjunct can receive a sloppy reading, and if one assumes that sloppy readings must always be grammatically represented, this case would show that the adjunct has been gapped in the second conjunct.

'because Johann wants to dance a saraband on the terrace and Cecilia wants to dance a pavane.'

b. weil Johann bei diesem Tanz zu mir schaute und ich zu ihm schaute.
'because Johann looked at me during this dance and I looked at him.'

Although the adjunct is not present in the second conjunct, it is felt to be there for the interpretation.

The second line of defense against Evers' claim that nonconstituents are gappable relies on the assignment of alternative constituent structure, and/or movement. Evers assumes a structure [adjunct [DP V]] or [[V DP] adjunct]. Assuming a Larsonian structure for the sentences of (69), the relevant structure would be [DP [V Adj]], and gapping of the verb and adjunct would observe constituency. Alternatively, the required constituency could arise after movement; thus Vanden Wyngaerd (1989) proposes that the object moves to Spec,AgrOP, creating a structure $[_{AgrOP}\ DP_i\ [_{VP}\ [V\ t_i]\ Adj\ ]]$, where gapping of VP would affect the verb and the adjunct. The account of gapping in terms of IP elision defended here is similar to the latter proposal, except that the landing site of raising of the object is Spec,FocP. Schematically, the derivation of a sentence where gapping has applied to verb and adjunct proceeds as follows:

(73) ... $[_{FocP}$ Foc° $[_{VP}$ Adj V DP]]^{21}

Attraction to Foc°: ... $[_{FocP}\ DP_i$ Foc° $[_{IP}$ ... $[_{VP}$ Adj V t_i]]]

Gapping applies to the remnant VP as usual (or some higher constituent containing that VP), deleting the verb and the adjunct.[22]

2.3. Double objects

Double object constructions constitute another case where more than just the verb may be gapped. The facts in (74) and (75) would appear to indicate that both the direct object and the indirect object can be remnants in a gapping constructions, with a slight preference for the direct object as a remnant.

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[21] As before, we assume that adjuncts are left-adjoined to VP (see Barbiers 1995). Assuming a Larsonian [DP [V Adj]] structure for VP would require additional movements to get the correct V-DP-Adj word order for English, e.g. by separately moving DP and Adj out of VP prior to VP-preposing.

[22] Under this approach to the sentences of (69), it is also the case that the two conjuncts are not entirely parallel: since in the first conjunct the word order is Adj-DP-V, the order there directly reflects underlying order, or, more plausibly, the object has moved to Spec,FocP, followed by raising of the adjunct to a position left of Spec,FocP. In either case, the derivation in the first conjunct differs from that in the second.

(74) a. Grandma gave her a new bicycle, and grandpa ~~gave her~~ a watch.[23]
b. Oma gaf haar een nieuwe fiets, en opa ~~gaf haar~~ een uurwerk.

(75) a. ?Grandpa gave Sally a birthday present, and grandma ~~gave~~ Susan ~~a birthday present~~.
b. ?Oma gaf Sally een verjaardagscadeau, en opa ~~gaf~~ Susanne ~~een verjaardagscadeau~~.

Norbert Corver (p.c.) points out that cases as those in (75) improve if an idiom is used, or in a context where no literal transfer is involved:

(76) a. Max gave Sally a hard time, and Harvey Susan.
b. Max gave Sally a kiss, and Harvey Susan.

The derivations of (74) presuppose the raising out of VP of the direct object prior to (VP-preposing and) gapping of the remnant VP, whereas in (75) it is the indirect object that has moved out of VP. The slight contrast between (74) and (75) might be taken to indicate that it is easier for the direct object to move out of VP than for the indirect object.[24]

Turning to the prepostional dative, similar patterns can be observed. Consider (77) (from Jackendoff 1971:24):

(77) Maytag will give a brand new dryer to the winner of the Mrs. Albania contest, and General Electric four hundred light bulbs.

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[23] Examples similar to (74) are discussed by Hankamer (1973:29), who assigns them a star (see also Larson 1990).

(i) a. Jack calls Joe Mike and ~~Jack calls~~ Sam Harry.
b. *Jack calls Joe Mike and Sam ~~calls Joe~~ Harry.

(ii) a. Max gave Sally a nickel, and ~~Max gave~~ Harvey a dime.
b. *Max gave Sally a nickel, and Harvey ~~gave Sally~~ a dime

While I would agree that the a-readings, which involve CR but no gapping, is more prominent in these cases than the b-readings, which involve gapping, they are not quite as bad as to deserve a star either. This becomes clear upon considering (iii), where the a-reading is ruled out because the pronoun does not have the appropriate Case form, so that only the b-reading remains.

(iii) She calls Sally a genius, and he a nutcase.
a. *__ and ~~Mary calls~~ he a nutcase.
b. ?__ and he ~~calls Sally~~ a nutcase.

Kuno (1976:307) discusses a similar case, arguing that a proper pragmatic context greatly improves parallel examples (see also Johnson 1996):

(iv) Of the people polled, 80% believe the President (to be) guilty, and 20% (to be) innocent.

[24] This fact suggests a parallel between raising-to-Foc° and wh-movement, rather than with NP-movement.

As before, both derivations require raising of the direct object out of VP. Raising the prepositional indirect object out of VP also produces acceptable results:

(78) a. Grandpa gave a birthday present to Sally, and grandma ~~gave a birthday present~~ to Susan.[25]
b. Oma gaf een verjaardagscadeau aan Sally, en opa ~~gaf een verjaardagscadeau~~ aan Suzanne.

In sum, we find that both direct and indirect objects, whether they be prepositional or not, can be the remnants in a gapping construction by raising out of VP into Spec,FocP.

2.4. Other VP-internal material

In this section, we merely list some examples such as they can be found in the literature, and how they might be analysed under the present proposal. Consider (79):

(79) a. Some Republicans want Ford to run for the Presidency in 1976, and others Reagan. (Kuno 1976:307)
b. Max seemed to be trying to force Ted to leave the room, and Walt (,) Ira. (Jackendoff 1971:25).
c. Jack begged Elsie to get married, and Wilfred Phoebe. (Jackendoff 1971:24)
d. Ralph told Dick Deadeye that Little Buttercup sold treacle, and Sir Joseph (,) the captain. (Jackendoff 1971:24)
e. Paul Schachter has informed me that the basic order in Tagalog and related languages is VOS; Ives Goddard that the unmarked order in Algonkian is OVS; and Guy Carden that the basic order in Aleut is OSV. (Ross 1970:250)
f. John struck Mary as being honest, and Bill ~~struck Mary~~ as being sincere. (Kuno 1976:312)

In (79a), the gapped part corresponds to *want to run for the Presidency in 1976*. A derivation that would allow this would involve the raising of the remnant DP *Reagan* out of the embedded clause into the matrix clause; (79b-c-d) represent similar cases. In section 3 below, we shall investigate the conditions under which such long-distance raising can take place. In (79e) the focused constituent is an entire (finite) CP. This example is straightforwardly derivable by assuming that CP raises to Spec,Foc° followed by gapping, in the usual fashion. Finally, (79f) represents a case where the constituent *as being sincere* is raised to FocP.

[25] Larson (1990) disapproves of examples like this one, though not everyone appears to share this judgment; see note 23 above.

3. VERB RAISING

3.1. Restructuring environments

Kayne (1998) provides an analysis of the ambiguity of (80) in terms of his theory of VP-preposing.

(80) a. I will force you to marry no one.
b. They forced us to learn only Spanish.

Under the narrow scope reading for *no one*, the addressee of (80a) will be forced to remain unmarried, whereas under the wide scope reading (s)he will not be forced to marry anyone. Similarly, (80b) can entail a prohibition to learn anything else than Spanish (narrow scope for the *only*-phrase), or an obligation that extends to only one language (wide scope). In German and Dutch, however, these ambiguities do not arise (example (82b) from Bayer 1996:215, quoted in Kayne 1998:34).

(81) a. Ik zal je dwingen om met niemand te trouwen.
b. Ze hebben ons gedwongen om alleen Spaans te leren.
(82) a. ...dass ich dir zwingen werde, niemanden zu heiraten.
b. ...dass man uns gezwungen hat nur Spanisch zu lernen.

In these examples only the narrow scope reading survives. Cases with two quantifiers reveal a similar contrast between English on the one hand and Dutch and German on the other (Bayer 1990:184n, Kayne 1998:35):

(83) a. Someone has tried to cheat everyone.
b. ... weil jemand versucht hat jeden reinzulegen.
because someone tried has everyone in.to.put
c. ... dat iemand heeft geprobeerd om iedereen te bedriegen.
that someone has tried Comp everyone to cheat

Whereas the English sentence is ambiguous and reveals the inverse scope reading whereby *everyone* takes scope over *someone*, the German and Dutch examples lack the latter reading. Kayne proposes to account for these contrasts in terms of an independently motivated difference between English on the one hand and Dutch and German on the other, which is that Dutch and German lack VP-preposing. This will not only account for the observed word order

difference (VO for English as opposed to OV for Dutch and German), but also for the attested scope differences. The English cases all involve the raising of some element (a quantifier or the DP attracted by *only*) out of the embedded clause into the matrix clause. This raising is followed by movement of the embedded VP into the matrix clause, past the element previously raised. In Dutch and German, on the other hand, the quantifier, c.q. focused DP, is unambigously contained within the embedded clause, a position from which it cannot take wide scope. Schematically, the difference between the two (sets of) languages is apparent from the following representations:

(84) a. Someone $[_{VP}$ has tried to cheat $t_i]_j$ everyone$_i$ t_j.
b. ...weil jemand versucht hat $[_{CP}$ jeden reinzulegen].
c. Iemand heeft geprobeerd $[_{CP}$ om iedereen te bedriegen].

In (84a) inverse scope is possible since the two quantifiers are contained in the same clause, whereas in (84b-c) inverse scope is lacking, the two quantifiers being contained in different clauses. Although I shall assume that this explanation is essentially on the right track, it does not really tell us *why* DPs cannot raise out of the infinitival clause into the matrix clause in Dutch and German, i.e. why the English type derivation represented in (84a) is unavailable in these languages. The explanation that I want to suggest here is that raising of a DP out of an embedded clause into the matrix is possible *only if restructuring or reanalysis takes place*. Restructuring involves a process of clause union, i.e. the merging of a biclausal domain into a monoclausal one, e.g. through the application of head incorporation, or verb raising in this concrete instance.[26] Restructuring is not overtly visible in English, but the extensive literature on verb raising in Dutch and German in the wake of the seminal work by Evers (1975) has revealed a number of diagnostic tests by which the presence of verb raising and consequent restructuring can be established. Thus in Dutch verb raising has been shown to be incompatible with the presence of the complementizer *om* (Bennis and Hoekstra 1989b):

(85) dat Marie (*om) de Viva probeert te lezen.
that Marie Comp the Viva tries to read
'that Marie tries to read the Viva.'

This fact gives us a handle on explaining the absence of the wide scope readings in (81) and (83b). The argument goes schematically as follows:

[26] Evers (1975) gives substance to this idea by assuming that the rule of verb raising involves a component of 'S-pruning', which results in the disappearance the embedded S boundary (CP in current terminology). Different implementations of this basic idea are obviously possible (see e.g. Rouveret and Vergnaud 1980, Rizzi 1982, Haegeman and Van Riemsdijk 1986, Guéron and Hoekstra 1988).

1. *om* is incompatible with verb raising
2. verb raising (or clause union) is a prerequisite for movement of the relevant DP out of the embedded clause into the matrix, and hence for the existence of inverse scope readings
3. therefore, sentences containing *om*, such as the ones in (81) and (83c), do not reveal inverse scope readings

The argument is confirmed by the fact that verbs that allow verb raising, such as *proberen* 'to try' in (85) do allow wide scope readings do arise when *om* is absent.

(86) a. Ik heb niemand proberen te beledigen.[27]
'I have tried to insult no one.'
b. Ik heb alleen Spaans proberen te leren.
'I have tried to learn only Spanish.'
c. Een reviewer zal elk abstract proberen te lezen.
'A reviewer will try to read each abstract.'

The same verb can occur in a nonrestructuring environment, however, as revealed by the presence of the complementizer *om*, and in these circumstances no wide scope readings are available.[28]

(87) a. Ik heb geprobeerd om niemand te beledigen.
'I have tried to insult no one.'
b. Ik heb geprobeerd om alleen Spaans te leren.
'I have tried to learn only Spanish.'
c. Een reviewer zal proberen om elk abstract te lezen.
'A reviewer will try to read each abstract.'

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[27] The wide scope reading is more clearly distinguishable from the narrow scope one with a verb like *durven* 'to dare' (though here the syntax of both constructions differs more radically).

(i) a. Ik heb niemand durven uitnodigen.
'I dared to invite no one.'
b. Ik heb het aangedurfd om niemand te uit te nodigen.
'I dared to invite no one.'

An additional property of the sentences in (86) which has been tied to the presence of verb raising is the occurrence of an infinitive (*proberen* 'to try') where one would expect a participle (*geprobeerd* 'tried'); this is the so-called *Infinitivus Pro Participio* or IPP effect (see note 38 below).

[28] See Vanden Wyngaerd (1996b) for discussion. In German similar pairs can be found, such as the following (from Bayer 1996:246, quoted in Kayne 1998):

(i) a. weil mir der Hans niemanden zu grüssen versprochen hat.
b. weil mir der Hans versprochen hat niemanden zu grüssen.
'because Hans promised me to greet nobody.'

The first of these sentences is ambiguous, the second is not.

In the literature, the difference between both types of constructions such as they are found with the verb *proberen* 'try' goes by the name verb raising (cf. (86)) vs CP-extraposition (cf. (87)).[29] Some verbs are obligatory verb raisers, with others verb raising is optional (*proberen* 'try' being a case in point), whereas others permit only CP-extraposition. Contrasts between verb raising and extraposition environments with respect to quantifier scope and focused elements confirm the link that we have proposed to establish between the possibility of raising a DP (and, possibly, VP) out of an embedded clause into the matrix and the presence of a restructuring environment.

The proposed link has consequences for what are possible and impossible gapping configurations: if a DP can be raised out of an embedded VP into a position higher than the matrix VP, it should be possible to subsequently gap the matrix VP/IP; this will result in the elision of matrix and embedded verb, the matrix subject and embedded object being the remnants. Such gapping configurations do indeed arise:

(88) a. I tried to read *Aspects*, and John ~~tried to read~~ *LGB*.
b. omdat ik *Aspects* heb proberen te lezen, en Jan *LGB* ~~heeft proberen te lezen~~.
c. weil ich *Aspects* zu lesen versucht habe, und Jan *LGB* ~~zu lesen versucht hat~~.[30]

[29] My use of the term 'CP-extraposition' does not imply a commitment to the belief that the complement clause actually extraposes. If Dutch has underlying VO-order, the sentential complement could be assumed to still be in its base position. The important distinction is that CP-extraposition environments are nonrestructuring, i.e. the sentential complement remains independent, and no movement into Spec,Foc° is possible out of it. The argument further rests on the assumption that movement into Spec,Foc° differs from wh-movement in not being able to use Spec,CP as an escape hatch. This property puts movement to Spec,Foc° in class with the A-like movement sometimes called Object Shift or Scrambling (see Vanden Wyngaerd 1989 for discussion).

[30] Facts such as those in (88) have in fact been already been noted by Evers (1975:11ff), who observes that the entire verbal cluster in verb raising constructions may be the target of gapping:

(i) weil Johann [$_S$ Gedichte zu schreiben beginnen] will
because Johann poems to write begin wants
und Cecilia [$_S$ Romane ~~zu schreiben beginnen]~~ ~~will~~.
and Cecilia novels to write begin wants
'because Johann wants to begin to write poems, and Cecilia novels.'

Evers argues that (i) shows that there is a single verbal node dominating all the sentence-final verbs in German, which results from the rule of verb raising. This conclusion does not follow directly under the approach to gapping taken here, but it does follow indirectly i.e. in so far as restructuring entails the creation of a single verbal node. Evers' argument further relies on a contrast between (i) and (ii) below.

(ii) *weil Johann [$_S$ Gedichte zu schreiben beginnen] will
because Johann poems to write begin wants
und Cecilia [$_S$ Arien anstimmen dürfen] ~~will~~.
and Cecilia arias sing be.allowed wants
'because Johann wants to begin to write poems, and Cecilia be allowed to sing arias.'

Schematically, the derivation of a sentence like (88a) would go as follows:

(89)
	... [$_{FocP}$ Foc° [$_{IP}$ John [$_{VP}$ tried to read *LGB*]]]
Attraction to Top°:	…[$_{TopP}$ John$_i$ [$_{FocP}$ Foc° [$_{IP}$ t$_i$ [$_{VP}$ tried to read *LGB*]]]]
Attraction to Foc°:	... [$_{TopP}$ John$_i$ [$_{FocP}$ *LGB*$_j$ Foc° [$_{IP}$ t$_i$ [$_{VP}$ tried to read t$_j$]]]
Gapping:	… [$_{TopP}$ John$_i$ [$_{FocP}$ *LGB*$_j$ Foc° ~~[$_{IP}$ t$_i$ [$_{VP}$ tried to read t$_j$]]~~]

That the crossing of clause boundaries by the focused constituent is indeed restricted to restructuring environments is confirmed by the fact that it cannot take place across a finite CP boundary; this is illustrated by (90).

(90) *John said that Harry would come, and Sam ~~said that~~ Sally ~~would come~~.

The difference between restructuring and nonrestructuring environments which showed up with quantifiers and *only*-focused elements (see the discussion of (86) and (87) above) is reproduced in gapping constructions. Since CP-extraposition does not give rise to clause merger in the way verb raising does, extraposition constructions do not allow gapping of the verbal cluster as in (88), as shown in (91a), whereas they do allow gapping of only the matrix verb, as (91b) reveals (see Bennis and Hoekstra 1989b:138).

(91) a. *dat Jan probeert [$_{CP}$ om de krant te lezen]
that Jan tries Comp the paper to read
en Marie ~~probeert~~ [$_{CP}$ om de Viva ~~te lezen~~].
and Marie tries Comp the Viva to read
'that Jan tries to read the paper and Marie the Viva.'

b. dat Jan probeert [$_{CP}$ om de krant te lezen]
that Jan tries Comp the paper to read
en Marie ~~probeert~~ [$_{CP}$ om televisie te kijken].
and Marie tries Comp television to watch
'that Jan tries to read the paper and Marie to watch television.'

In terms of the present analysis, a case like (91b) would be derived by raising the entire CP to Spec,Foc°. The analysis of (91a) is somewhat more problematic: raising of the embedded object into the matrix clause would have to cross a (nonrestructuring) CP-boundary, a movement which we have assumed is illegitimate. But subsequent deletion of the relevant

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If indeed the S-structure of (ii) were as indicated, i.e. with the S node, Evers argues, one would expect gappings as in (ii) to be acceptable, which they are not. One may further observe that the type of gapping found in (ii) is possible in nonrestructuring environments, as one would expect (see (0) below and discussion).

remnant constituent would necessarily also affect the complementizer *om*. This derivation yields the following sentence:

(92) ??*dat Jan probeert om de krant te lezen
that Jan tries Comp the paper to read
en Marie ~~probeert om~~ de Viva ~~te lezen~~.
and Marie tries Comp the Viva to read
'that Jan tries to read the paper and Marie the Viva.'

Although Neijt (1979:183) notes that (92) is bad for most speakers, it is equally clear that the sentence is significantly better than (91a). For an account of this phenomenon, see the discussion surrounding (119) below. Similar contrasts between restructuring and nonrestructuring environments may be observed in English. Ross (1970:250) argues that the sentence in (93) can result in any of the sentences of (94) as a consequence of the application of gapping.

(93) Bill wants to try to begin to write a novel, and Mary wants to try to begin to write a play.[31]

(94) Bill wants to try to begin to write a novel, and Mary
a. to try to begin to write a play.
b. to begin to write a play.
c. to write a play.
d. a play.

Let us start out with (94d), the most straightforward example of Ross' series. This results from raising the direct object *a play* from the most deeply embedded VP into the matrix clause, a movement contingent upon internal restructuring of the string *wants to try to begin to write*; gapping subsequently applies to the remnant constituent. The other cases of (94) involve the raising to Spec,Foc° of the CP-complement that is the remnant of the gapping construction, followed by raising of the remnant VP and gapping. For example, in (94a) the CP embedded immediately under the matrix verb *want* is raised to Spec,Foc° (i.e. *to try to begin to write a play*), after which the remnant VP, which now contains only the matrix verb *want* anymore, is preposed, and gapping applies. In (94b) it is the CP embedded under *try* which is raised (i.e. *to begin to write a play*); the remnant VP now contains *wants to try t*, which string corresponds exactly to the material that is gapped in (94b). The only assumption that needs to be made is that restructuring is optional with these verbs, just as verb raising is

[31] Ross' example actually has *I* instead of *Bill*, but since the change in person makes the gapping unacceptable for some speakers, I have eliminated this potentially disturbing factor.

optional with a well-determined set of verbs in Dutch.[32] The blocking effect of prepositional complementizers on restructuring can also be observed in English, as in the following examples (due to Johnson 1996):

(95) a. *Vivek wanted for Nishi to buy the video, and Carrie ~~wanted for Nishi to buy~~ the ice cream.
b. *Carrie prefers for Will to play video games, and Nishi ~~prefers for Will to play~~ pool.

In sum, the contrast between verb raising and extraposition constructions with respect to gapping further supports the link between the presence of a restructuring environments and the possibility of raising a DP out of an embedded VP into the matrix clause.

So far, we have not been fully explicit on the terms restructuring and verb raising; especially the former term leaves open the possibility that the verbs at issue do not actually undergo had movement at all, but that the effects of the process arise through some other formal means (e.g. thematic rewriting rules as in Rouveret and Vergnaud 1980, or cosuperscripting as in Rizzi 1982, or coindexing and index percolation as in Guéron and Hoekstra 1988, or other formal devices still, as in Haegeman and Van Riemsdijk 1986). And indeed for some languages there is not a great deal of evidence that verbs actually undergo head movement. A case in point is English, where apart from the scope and gapping facts, no additional evidence such as word order facts suggest that verb raising has taken place. Historically, this claim has been made in the literature with respect to Dutch and German, but not English, presumably because the word order evidence is of a type that is immediately obvious and that cannot therefore be ignored. Indeed, the one classical argument in favour of actual verb movement concerns word order. These initially put up Dutch as a strong candidate for verb raising. The reason for this is the following: surface word order in verbal strings is identical to that found in English, i.e. V1-V2-V3, the difference being the position of the direct object, which follows the verbal string in English but precedes it in Dutch. This difference was assumed to reflect a difference in the underlying order of constituents in the VP: VO in English, OV in Dutch. But this also implied that the surface V1-V2-V3 order had to result from a rearrangement of the underlying order through movement: since V3 is contained within

[32] Optional restructuring can also account for the following examples, where only the finite verb is gapped ((i) from Johnson 1994:43).

(i) Mittie must eat and Sam ~~must~~ bathe.
(ii) a. John might have found the equipment, and Fred ~~might~~ have broken it.
b. *John might have found the equipment, and Fred could ~~have~~ broken it.

Here the constituent raised to FocP could be the VP embedded under *must* and *might*, respectively. Severe restrictions apply to this kind of construction, however (see Johnson 1996, note 13).

the internal argument of V2, it would precede its dominating verb V2, and by the same reasoning V2 would precede V1 in underlying order. The underlying order in both systems is represented schematically in (96).

(96) a. VO: $[_{VP1}$ V1 ... $[_{VP2}$ V2 ... $[_{VP3}$ V3 DP]]]
b. OV: $[_{VP1}$ $[_{VP2}$ $[_{VP3}$ DP V3] ... V2] ... V1]
Dutch surface order: V1 V2 V3
German surface order: V3 V2 V1

Verb raising was therefore not only a means to derive the required restructuring of clausal domains, but also to derive the correct surface word order. Assuming an underlying OV order for Dutch and German, it was surface word order in Dutch in particular that required a rule rearranging the verbs. For German, some authors have argued that it does not have verb raising in so-called 'uninverted' (i.e. V3-V2-V1) verb sequences (e.g. Den Besten and Broekhuis 1989, Den Dikken 1988, 1989, Kroch and Santorini 1991, Broekhuis 1992, Coppen and Klein 1992). The work of Kayne (1994) and Zwart (1997) led to a radical shift in perspective: Dutch being like English with respect to underlying word order (i.e. VO), there is no need anymore to modify the underlying order of verbs in so-called verb raising constructions in Dutch, but now German becomes the language for which a rearrangement rule is necessary. Whatever about these considerations, we believe, following Evers (1975), that word order facts are not the only nor the most important type of evidence in favour of clause union. Other evidence relating to the transparency of infinitival complements for various types of syntactic and interpretive processes is at least as important. A similar conclusion is drawn in Grewendorf (1987), who argues that transparency effects resulting from restructuring are independent of actual verb movement.[33] Since the evidence at issue does not show any distinction between the languages under consideration, we may safely assume that clause union takes place in all of them in some form or other.

The actual mechanism through which the effects of clause union arise, on the other hand, is still a moot issue. We just observed that for Dutch and English the word order facts do not require actual head incorporation (adopting a universal VO framework). If there were overt head incorporation in these languages, we would expect them to display a German style word order, which they evidently do not. One could therefore assume that the verbs move at LF, but then the link that we have established between DP-movement into Spec,Foc° and restructuring requires a nonderivational approach to restrictions on movement. Raising of DP necessarily takes place before Spell-Out whereas restructuring (i.e. head incorporation) would take place only after Spell-Out. This presupposes that the restrictions on DP-movement are

[33] Grewendorf even suggests that in AcI complements there is verb raising without clause union, as object clitics cannot raise out of AcI complements (though subject clitics can, a fact Grewendorf leaves unexplained).

not inherent to the formulation of the movement rule itself (e.g. 'Shortest Move'), but that they hold at LF. An alternative is to adopt the copy theory of movement and derive differences between 'overt' and 'covert' movement from the locus of deletion: deletion in the target position of the movement gives the impression of covert movement, deletion in the source position makes the movement visible (see Brody 1995). Neither of these approaches squares well with the avenue taken in Kayne (1998), which assumes that there is no covert movement (or anything giving the effect of it, as in Brody's framework). A different solution to the problem of restructuring could therefore consist in assuming that the restructuring process is part of the workings of Merge, i.e. it could be assumed that Merge directly generates a monoclausal structure containing more than one verb. Such an approach is at least compatible with the minimalist framework, as there is no Projection Principle demanding strict adherence in the syntax to lexical requirements.[34]

3.2. Subgapping

The assumption that there is actual head movement allows an account of certain restrictions on gapping. If indeed verbs form clusters through successive head-adjunction, and if gapping involves VP-deletion, there is no possibility to gap anything less than the entire verbal cluster. It is, in other words, impossible to gap subparts of the cluster. This ban on subgapping parts of verbal clusters does indeed turn out be a property of gapping constructions, as the following examples show ((97a) from Kroch and Santorini 1991:301):

(97) a. *daβ Hans Gedichte schreiben können möchte
that Hans poems write be.able would.like
und Heike Romane ~~schreiben können~~ muβ.
and Heike novels write be.able must
'that Hans would like to be able to write poems, and Heike has to novels.'

b. *weil ich Johann eine Sarabande tanzen sehe
because I Johann a saraband dance see
und Cecilia eine Pavane ~~tanzen~~ lasse.
and Cecilia a pavane dance let
'because I see Johann dance a saraband and let Cecilia a pavane.'

If there were no cluster formation through verb movement, a case like (97a) could be derived by moving the direct object DP *einen Schlager* into the matrix Spec,FocP and subsequently deleting the lowest VP [*singen t*] (or the IP containing it), clearly an unwelcome result. If, on

[34] Such an approach would also agree well with the spirit of the proposal by Rouveret and Vergnaud (1980:157ff), who suggest that the notion 'argument of a verb' may be determined in the course of a derivation.

the other hand, *singen* head-adjoins to the matrix verb *muβ*, as we are assuming, any deletion of an IP that will affect the verb *singen* 'to sing' will also affect the verb *muβ* 'must' with which it forms a cluster. The proposed analysis therefore directly accounts for facts such as these. However, the fact that the English translations of these examples reveal a complete parallellism with the German facts suggests that this explanation might not be sufficient. No overt verb movement takes place at all in English, and the same holds true for Dutch, which nevertheless shows the ban against subgapping; (98) gives the Dutch equivalents of the German examples in (97).

(98) a. *dat Hans gedichten wil kunnen schrijven
that Hans poems wants be.able write
en Heike romans moet ~~kunnen schrijven~~.
and Heike novels must be.able write
'that Hans wants to be able to write poems, and Heike has to novels.'

b. *dat ik Johan een sarabande zie dansen
that I Johan a saraband see dance
en Cecilia een pavane laat ~~dansen~~.
and Cecilia a pavane let dance
'that I see Johan dance a saraband and let Cecilia a pavane.'

Like English, Dutch shows no evidence of verb movement. These languages would therefore appear to require an additional restriction concerning which constituents can be affected by the gapping rule. Concretely, it must be the case that only the highest IP can be affected by gapping. This restriction is straightforward under the otherwise reasonable assumption that the restructuring process entails the disappearance of the embedded IP-nodes: since there are no lower IPs left, they cannot be deleted by gapping (cf. Evers' rule of pruning; see note 26). By contrast, it is rather unlikely that the embedded VPs could disappear in this fashion, i.e. as a consequence of the restructuring process. The subgapping cases therefore provide an indirect argument for analysing gapping as IP-deletion.

Returning to the issue of subgapping parts of a verbal cluster, we observe that the ban against subgapping does not appear to be absolute. Thus Kroch and Santorini (1991:301) note the following.

(99) ?daβ Hans Gedichte schreiben können möchte
that Hans poems write be.able would.like
und Heike Filme drehen ~~können möchte~~.
and Heike movies turn
'that Hans would like to be able to write poems and Heike to shoot movies.'

It seems obvious that this example involves subgapping, although this time it concerns the highest verbs (V1 and V2), whereas in the previous examples the lower verbs (V3 and/or V2) were gapped. But the problem is more serious than that. If German is assumed to have verb raising, the proper bracketing of the cluster in (99) would then be [[*drehen können*] *möchte*], in which gapping of *können möchte* involves the gapping of a nonconstituent. And even if there were no actual head movement, our analysis would make a deletion of the highest IP automatically ential the deletion of any verb contained therein, i.e. also the V3 *drehen* 'to turn'. This suggests that something altogether different is going on here. What I shall propose is that the lowest verb *drehen* 'to turn' does not actually become a part of the restructuring complex but stays outside it. The constituent immediately dominating the verb and its object (i.e. *Filme drehen* 'to shoot movies') is not a VP, contrary to appearances, but a DP. Like any other object DP, this DP can be raised to Spec,Foc° and become the remnant in the gapping construction. For ease of exposition, I shall consider a somewhat simpler Dutch equivalent of this type of sentence.

(100) dat Hans gedichten wil schrijven
that Hans poems wants write
en Heike films draaien.
and Heike movies turn
'that Hans wants to write poems and Heike to shoot movies.'

This sentence is acceptable, despite the fact that it appears to involve subgapping of the finite verb *wil* 'wants'. An account for these data can be found in the existence of nominal infinitives: these infinitives share with English gerunds the property of being verbal to variable degrees internally, but nominal as far as their external distriution is concerned (see Chomsky 1970, Wasow and Roeper 1972, Jackendoff 1977, Reuland 1983, Hoekstra and Wehrmann 1985). For example, if they select an internal argument, the latter may occur to the left of the inifinitive and not require a Case-asigning preposition like *van* 'of'.

(101) a. Vaak sigaren roken is ongezond.
Often cigars smoke.inf is unhealthy
'Smoking cigars frequently is unhealthy.'
b. Ik hou niet van restaurants bezoeken.
I hold not of restaurants visit.inf
'I do not like visiting restaurants.'

Nominal infinitives have the external distribution of DPs: as (101) shows, they can occur as subjects and in the complement of a preposition, which is impossible for true sentential subclauses.

(102) a. *Om vaak sigaren te roken is ongezond.
Comp often cigars to smoke is unhealthy
'To smoke cigars frequently is unhealthy.'
b. *Ik hou niet van (om) restaurants te bezoeken.[35]
I hold not of Comp restaurants to visit
'I'm not keen on to visit restaurants.'

When occuring in the position of the direct object, nominal infinitives occur to the left of the dominating verb. This implies that, as far as Dutch is concerned, there is a difference in word order between a verbal and a nominal infinitive: reconsider (100), where in the first conjunct the embedded verb *schrijven* 'to write' is to the right of its dominating verb *wil* 'wants'. The direct object of the embedded verb has been raised to the specifier position of some functional projection to the left of the matrix verb for Case reasons. An alternative surface word order is possible, however, as illustrated by (103):

(103) dat Hans [$_{DP}$ gedichten schrijven] wil
that Hans poems write wants

Here the embedded verb is to the left of its dominating verb. I suggest that this alternative word order reflects a different underlying constituency: whereas the embedded verb and its object in (100) are verbal, i.e. form a VP, in (103) they constitute a nominal constituent, i.e. a DP. As DP objects generally, these occur to the left of the dominating verb.

This analysis is confirmed by another property of nominal infinitives: they never have *te* 'to'. This was already illustrated by the examples in (102) above: the addition of an (optional) complementizer *om* and of *te* 'to' render the nominal infinitive analysis unavailable, as *te* 'to' marks the inifinitive as unambiguously verbal. The alternative word order that is found in (103), and which we attributed to the nominal infinitive analysis, is only available when the matrix verb is one selecting an infinitive without *te* 'to', such as *kunnen* 'be.able', *willen* 'want', etc.; verbs selecting a to-infinitive, such as *proberen* 'try', disallow the alternative order:

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[35] A clause in the complement of a P requires the insertion of the dummy element *er* 'there' (see Bennis 1986).

(i) Ik hou er niet van (om) restaurants te bezoeken.
I there hold not of Comp restaurants to visit
'I don't like to visit restaurants.'

(104) a. ?dat Heike films draaien wil/kan/zal/moet.
that Heike movies turn wants/can/shall/must
'that Heike wants to shoot movies.'
b. *dat Heike films (te) draaien probeert.
that Heike movies to turn tries
'that Heike tries to shoot movies.'

This is because *te* 'to' marks the infinitive as unambiguously verbal, and hence blocks the nominal infinitive analysis which is possible with verbs selecting a to-less infinitive.

With this in mind we can return to the problem posed by the apparent (nonconstituent) subgapping of the higher verbs V1 and V2 in (99). We propose that the string *Filme drehen* 'shooting movies' is a DP, which never become part of the verbal cluster.[36] Applied to the simpler Dutch example (100), the proper representation of the second conjunct would involve the structure $[_{DP}$ *films draaien* $]$ ~~*wil*~~. In either case gapping of the matrix verb only observes both the constituency constraint on gapping and the ban against subgapping. If this analysis is on the right track we expect that the restriction against to-infinitives should be reflected in the area of gapping as well. This prediction is confirmed, as can be gathered from (105).[37]

(105) ?*dat Hans gedichten probeert te schrijven
that Hans poems tries to write
en Heike films te draaien.
and Heike movies to turn
'that Hans tries to write poems and Heike to shoot movies.'

---

[36] Needless to say, the analysis of *drehen* 'to turn' as a nominal infinitive is only one possibility; if *drehen* 'to turn' is analysed as a verb, it needs to undergo verb raising and a verbal cluster is formed, as in the following example:

(i) Drehen können möchte er einen Film über Helmut Kohl.
turn be.able would.like he a movie about Helmut kohl
'He would like to be able to shoot a movie about Helmut Kohl.'

[37] The example (105) is marginally possible under a reading where the second conjunct is understood as involving extraposition, i.e. if represented as in (i):

(i) dat Hans gedichten probeert te schrijven
that Hans poems tries to write
en Heike ~~probeert~~ films te draaien.
and Heike tries movies to turn
'that Hans tries to write poems and Heike to shoot movies.'

This is a grammatical representation in terms of the constraints on gapping; the acceptability of the sentence is low, however, due to the parallelism constraint on conjoined structures. This is shown by the fact that the acceptability of the nongapped variant of (i) is equally low.

Compared to (100), (105), where the matrix verb *wil* 'wants' is replaced by one that selects a to-infinitive (*probeert* 'tries'), is substantially worse.[38] The nominal infinitive finds a counterpart in English gerundival constructions. This type of account can also be applied to (99) above: the nongapped verb *drehen* 'turn' is not a verb but a noun, which never becomes part of the verbal cluster. What is gapped can consequently be assumed to observe the constraints on gapping. The nominal infinitive has an English equivalent in the form of the gerund, and we likewise find cases in English of apparent subgapping.

(106) Bill wants to try to begin writing a novel, and Mary writing a play.

What is gapped here is the cluster *wants to try to begin*. As was the case with the nominal infinitive in Dutch and German, the gerund never becomes a part of this cluster, and can therefore be stranded in the remnant.

A more complex set of facts involving apparent subgapping is presented by Den Besten and Broekhuis (1989:95). They note the following example (from Evers 1975:13), which combine gapping with conjunction reduction, and which are good beyond expectation:

(107) ?weil wir Johann ein Lied singen hörten
because we Johann a song sing heard
und Cecilia ein Gedicht vortragen ~~hörten~~.
and Cecilia a poem recite heard
'because we heard Johann sing a song and Cecilia recite a poem.'

[38] The analysis is further supported by facts of word order and *Infinitivus Pro Participio* or IPP. The IPP effect involves the appearance of an infinitive (e.g.*willen* 'want' in (ib)) where one would expect a participle (such as *gewild* 'wanted' in (ia)). The presence of the IPP effect signals the application of verb raising (Bennis and Hoekstra 1989a, Den Dikken 1988, 1989, Vanden Wyngaerd 1996). To the extent that (0a) can be put in the perfect, we find that it lacks IPP. (The relatively poor acceptability of the perfect variant might be due to a property of articleless nominal infinitives noted in Hoekstra and Wehrmann (1985), viz. that they are restricted to atemporal contexts.)

(i) a. ??dat Heike films draaien (gewild) heeft (gewild).
that Heike movies turn wanted has wanted
'that Heike has wanted to shoot movies.'
b. dat Heike films (*draaien) heeft willen (draaien).
that Heike movies turn has want.inf turn
'that Heike wants to shoot movies.'

Moreover, as noted in Bennis and Hoekstra (1989a:39n), the verb(s) embedded under the auxiliary *heeft* 'has' cannot occur to its left in verb raising constructions with IPP (see (ib)). The fact that this is possible in (ia) supports our claim that no cluster formation takes place in this example.

Den Besten and Broekhuis see in this an argument against Evers' claim that German has verb raising. They furthermore attribute the degraded status of examples involving subgapping to the fact that an increase in the number of contrastive accents generally has a deteriorating effect on gapping constructions. While Evers acknowledges the problem (107) poses, he also notes that the phenomenon is limited to finite main verbs (1975:13). That is, with an infinitive as the highest verb in a cluster, subgapping of the infinitive itself is ruled out, as (108) reveals.

(108) *Es wäre schön gewesen,
It would.be nice been
Johann eine Arie singen zu hören
Johann an aria sing to hear
und Cecilia ein Gedicht vortragen ~~zu hören~~.
and Cecilia a poem recite to hear
'It would have been nice to hear Johann sing an aria and Cecilia recite a poem.'

In terms of number of contrastive accents, (108) is exactly on a par with (107), yet it has a sharply degraded status. This observation Den Besten and Broekhuis fail to address. The account presented above in terms of the nominal infinitive analysis allows one to account for the unexpected grammaticality of (107) by assigning it an alternative analysis as a nominal infinitive. The question at this point is whether the (expected) ungrammaticality of (85) can still be explained, given the availability of the alternative analysis. For reasons unclear, a nominal infinitive turns out to be independently marginal under a *to*-infinitive, as the contrast in (109) shows.

(109) a. dat hij een gedicht voordragen kan.
that he a poem recite can
'that he can recite a poem.'
b. ?*Het ware mooi geweest [$_{DP}$ een gedicht voordragen] te kunnen.
It were nice been a poem recite to be.able
'It would have been nice to be able to recite a poem.

One therefore expects (apparent) subgapping to be marginal when the matrix verb is a *to*-infinitive, as indeed it is, witness (108).

Other cases which could at first sight be taken to involve subgapping are the following (from Höhle 1985):

(110) a. Pseudoargumente und -lösungen
pseudo-arguments and solutions

‘pseudo-arguments and pseudo-solutions’

b. Haupteingänge oder -ausgänge
main entrances or exits
‘main entrances or main exits’

However, rather than assimilating these to the gapping construction, I should think they instantiate a variant of conjunction reduction at the X° level. Observe that the ellipsis must occur in the right hand conjunct.

(111) a. *-argumente und Pseudolösungen
b. *-eingänge oder Hauptausgänge

By contrast, the ellipsis must occur in the *left* conjunct when it affects the right hand part of a compound:

(112) a. Herbst- und Frühlingsblumen
autumn and spring flowers
b. *Herbstblumen und Frühlings-

As far as (110) is concerned, let us assume that subparts of compounds may be conjoined, more or less as in the (29b) analysis of conjunction reduction. The structure of the compounds in (110) would then be as in (113).

(113) $[_{N}$ N $[_{CONJP}$ N und/oder N]]

Under this analysis, no plausible structure can be assigned to the ungrammatical variants in (111). The analysis also straightforwardly accounts for a further restriction to the effect that the ellipsis exemplified by (110) is restricted to the X° domain:

(114) *Johanns Pseudoargumente und Cecilias -lösungen
Johann’s pseudoarguments and Cecilia’s pseudosolutions

Note, however, that this restriction fails to hold for structures of the type (112a):

(115) Johanns Frühlings- und Cecilias Herbstblumen

We therefore propose to analyse (112a) as a case of RNR (see also Hoeksema 1991:686). The acceptability of (115) is expected, as the only requirement on the shared element in RNR

constructions is that it be peripheral in both conjuncts. An example showing that there is no constituency condition on RNR is given in (116).

(116) weil Johann Herbst~~blumen liebt~~ und Cecilia Frühlingsblumen liebt.
because Johann autumn flowers likes and Cecilia spring flowers likes
'because Johann likes autumn flowers and Cecilia spring flowers.'

Summarizing, we can say that gapping does not exist below the word level, in contrast to CR and RNR.

A converse case from that of subgapping is that of verb second (V2), which moves the finite verb into the C position of the matrix clause. V2 is peculiar in that it can only affect the topmost verb in a verbal cluster, and not the whole cluster itself, i.e. it instantiates the sort of excorporation forbidden by Baker (1988:73). Furthermore, a verb that has been taken out of a cluster by V2 continues to behave as if it were inside the cluster for gapping purposes, i.e. it is gapped along with the other elements of the cluster. For example, the gapping of a cluster which was illustrated by (88) above continues to be possible even if the finite verb is fronted by V2 (see (117)). As Jack Hoeksema (p.c.) points out, the same holds true for Subject-Aux inversion constructions in English:

(117) a. Ik heb *Aspects* proberen te lezen, en Jan ~~heeft~~ *LGB* ~~proberen te lezen~~.
b. Ich habe *Aspects* zu lesen versucht, und Jan ~~hat~~ *LGB* ~~zu lesen versucht~~.
(118) Couldn't John have killed the cats, and ~~couldn't~~ Mary ~~have killed~~ the goldfish?

These properties can be accounted for by assuming that V2 is a rule which applies in the PF branch of the grammar, where it would not be subject to a ban against excorporation. The claim that V2 is a PF rule is confirmed by the fact that it is sensitive to phonological factors, such as the stressed or stressless nature of particles in Dutch particle verbs (see Sybesma and Vanden Wyngaerd 1997 for discussion). The pattern of data presented in (117) and (118) could then be derived by letting gapping precede, and therefore effectively bleed, the application of V2. Another possibility for analysing these cases would be to assume that gapping involves the deletion of CP, whose head, C° hosts the raised verb, the remnants occupying some functional position hosting focused material higher than CP.

3.3. Discontinuous gapping

Evers (1975:14) presents some arguments from verb raising against the claim defended here that gapping observes the constituency condition (5). The examples he discusses involve discontinuous verbal clusters:

(119) a. ?weil Johann beschloss zu versuchen eine Elegie vorzutragen
because Johann decided to try an elegy to.recite
und Cecilia ~~beschloss zu versuchen~~ eine Ode ~~vorzutragen~~.
and Cecilia decided to try an ode to.recite
'because Johann decided to try to recite an elegy and Cecilia an ode.'

b. ?weil er beginnt Johann zu lehren die Sarabande
because he begins Johann to teach the saraband
zu spielen
to play
und sie ~~beginnt~~ Cecilia ~~zu lehren~~ die Gavotte ~~zu spielen~~.
and she begins Cecilia to teach the gavotte to play
'because he starts to teach Johann to play the saraband and she Cecilia the gavotte.'

Evers expresses some serious doubts concerning the acceptability of these examples, noting that they are 'heavily dependent upon intonational help' and suggesting that the examples are 'atypical' (1975:14). Whatever about that, the examples in (119) do not necessarily force upon one the conclusion that gapping affects nonconstituents. To see why this is so, consider once again (91a), repeated below, which shows rather clearly that discontinuous sequences of verbs are not gappable.

(91) a. *dat Jan probeert [$_{CP}$ om de krant te lezen]
that Jan tries Comp the paper to read
en Marie ~~probeert~~ [$_{CP}$ om de Viva ~~te lezen~~].
and Marie tries Comp the Viva to read
'that Jan tries to read the paper and Marie the Viva.'

The difference between (91a) and (119) is that the former involves a complementizer whereas the latter does not. This fact may considerably influence the acceptability of the examples at issue, in Dutch as well as in German. Thus (91a) improves somewhat if the complementizer is omitted in the second conjunct, as witnessed by (92) above, repeated here for convenience:

(92) ?*dat Jan probeert om de krant te lezen
that Jan tries Comp the paper to read
en Marie ~~probeert om~~ de Viva ~~te lezen~~.
and Marie tries Comp the Viva to read
'that Jan tries to read the paper and Marie the Viva.'

The example gets better still if the complementizer is also omitted in the first conjunct, which yields a configuration identical to Evers' examples in (119):

(120) dat Jan probeert de krant te lezen
that Jan tries the paper to read
en Marie ~~probeert~~ de Viva ~~te lezen~~.
and Marie tries the Viva to read
'that Jan tries to read the paper and Marie the Viva.'

On closer consideration, examples like (119) and (92) do not provide such strong evidence for discontinuous gapping. It is entirely possible that (119) and (92) do not have extraposition in the second conjunct, but rather verb raising; their proper representation would then be as in (121).

(121) dat Jan probeert (om) de krant te lezen
that Jan tries the paper to read
en Marie de Viva ~~probeert~~ ~~te lezen~~.
and Marie the Viva tries to read

In (121), the first conjunct is to be analysed as a case of CP-extraposition, whereas the second conjunct features verb raising. This analysis extends to (119) and (92), where verb raising is a possible analysis in the second conjunct (i.e. unlike the structure given in those examples). No discontinuous gapping need therefore have taken place in these cases. One only needs to give up the assumption, often implicitly made in the literature on Gapping, that two conjuncts need to be exactly structurally parallel (although there is apparently some speaker-bound variation with respect to this parallellism requirement; thus Kerstens 1981:77 finds (120) unacceptable). This analysis is in fact confirmed by (91a), where the presence of the complementizer *om* in the second conjunct blocks the verb raising analysis. Verb raising is known independently to be incompatible with the presence of *om* (see (85) above).[39] The current analysis predicts the

[39] The fact that (92) does allow the verb raising analysis in the second conjunct leads one to expect it to have a less sharply deviant status than it actually has. Observe, however, that the nongapped variant of (92), with extraposition in the first and verb raising in the second conjunct, reveals the same low acceptability:

German analogue of (91a) to be sharply deviant; unfortunately, this prediction is impossible to test, as German has no analogue of the Dutch complementizer *om*, which occurs in extraposed clauses.

4. CONCLUSION

I argued that gapping is a rule in its own right, to be kept apart from other known rules of ellipsis such as VP-deletion, conjunction reduction and Right Node Raising. The rule of gapping was furthermore shown to affect constituents, with a maximum of one constituent at a time. Concretely, gapping involves the deletion at PF of a remnant constituent, which contains at least the verb, but can also contain other IP-internal material such as small clause predicates, adjuncts, double objects, subjects, etc. Restructuring environments lend support for the analysis, as they provide an environment for extracting VP-contained constituents over more than one clause boundary. The analysis proposed was shown to derive the ban against subgapping in verbal clusters. Cases apparently violating this ban were given an alternative analysis as nominal infinitives or cases of CR or RNR at the X° level.

(i) ?*dat Jan probeert om de krant te lezen
that Jan tries Comp the paper to read
en Marie de Viva probeert te lezen.
and Marie the Viva tries to read
'that Jan tries to read the paper and Marie tries to read the Viva.'

This can be seen as a consequence of a more general parallelism requirement on coordinated structures (see Zwicky and Sadock 1975, Lang 1977, Schachter 1977), which could explain the deteriorated status of (i), as well as that of (92). Observe that the nongapped variant of (120), though not quite parallel in the two conjuncts, is far more acceptable:

(ii) dat Jan probeert de krant te lezen
that Jan tries the paper to read
en Marie de Viva probeert te lezen.
and Marie the Viva tries to read

Whereas the first conjunct has extraposition (without *om*), the second has verb raising. This does not appear to affect the acceptability of the example, however, for reasons that are unclear to me (see also note 37). This squares well with the proposed analysis of (120) as in (121).

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