Minimalist Verb (Projection) Raising

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1. Introduction: OV or VO?*

The 'traditional' generative analysis of the verbal cluster in West Germanic languages such as Dutch, German and their dialects (cf. Evers 1975 and much later work) is built on an underlying OV structure. Two movement processes affecting verbs or their projections, called Verb Raising (VR) and Verb Projection Raising (VPR), are then held responsible for the surface word order in examples like West Flemish (1a) (instantiating VR) and (1b) (which exhibits VPR):

(1) a. da Jan geen vlees wilt eten   (Verb Raising)
         that Jan no meat wants eat
     b. da Jan wilt geen vlees eten   (Verb Projection Raising)

On the basis of an underlying structure of the type in (2), the OV analysis may then resort to several ways of formally instantiating VR and VPR. A concise summary of the main representatives attested in the V(P)R literature is given in (3) (for VR) and (4) (for VPR).

(2)

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                    VP1
                   /   \
               VP2      V1
              /   \
            NP     V2
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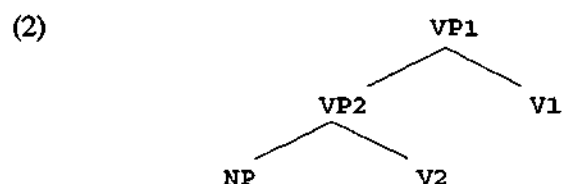
(3) a. Deriving (1a) by *head incorporation*: V2 (right-)adjoins to V1 (cf. Evers 1975 and much later work in its wake)
     b. Analysing VR as *'covert' VPR*, and deriving (1a) in one of the ways of deriving VPR mentioned in (4a–c), with *scrambling* of NP out of VP2 (Den Besten & Broekhuis 1992, who build on previous suggestions in a.o. Vanden Wyngaerd 1989, Den Dikken 1989, Rutten 1991, Coppen & Klein 1992; but see Haegeman 1994 for criticisms)
     c. Deriving (1a) with the aid of a *reanalysis* mechanism (Haegeman & Van Riemsdijk 1986)
(4) a. Deriving (1b) by *incorporation* of VP2 into V1 or NP into V2 (cf. Haegeman 1988)
     b. Deriving (1b) by *extraposition/raising* of VP2; adjunction of VP2 to VP1 or (more likely) to IP (Den Dikken 1989, Rutten 1991, Haegeman 1992)
     c. Deriving (1b) by PF-*inversion* of V1 and VP2; syntactic configurations not affected (Broekhuis 1993a)
     d. Deriving (1b) with the aid of a *reanalysis* mechanism (Haegeman & Van Riemsdijk 1986)
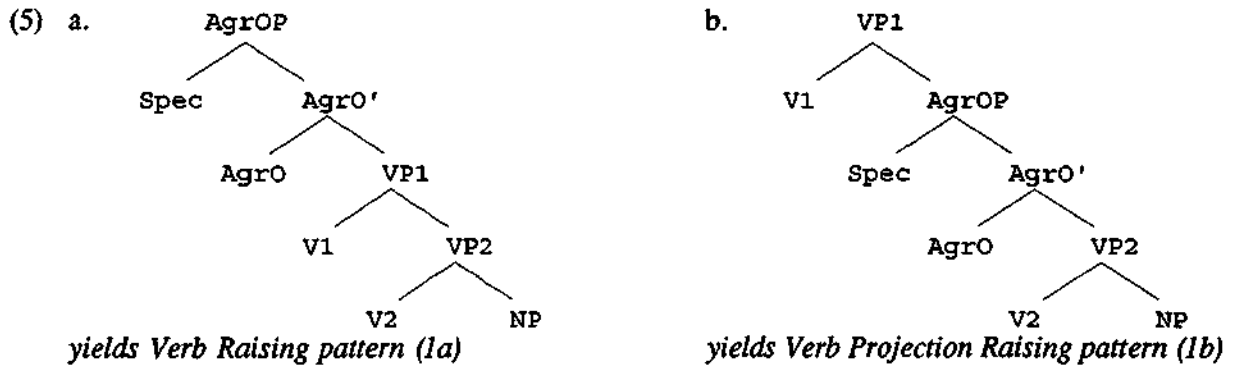
Of these various options, the reanalysis approach (3c)/(4d) is conceptually and empirically unattractive (cf. Haegeman 1992:128–48), and will not be addressed here. The VP/NP-incorporation analysis of VPR (4a) will also generally be ignored in what follows, since it fails to conform to the restrictive theory of adjunction in Chomsky (1986), according to which only heads may adjoin to heads.[1]

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1 Calling this a 'theory of adjunction' is giving it rather too much credit. It is actually not clear why adjunction should be restricted the way Chomsky restricts it; this certainly does not immediately follow from Structure Preservation.

Kayne's (1993) recent proposals to the effect that phrase structure is uniformly of the basic form Specifier–Head–Complement, however, exclude an OV-type approach to the syntax of the West Germanic OV languages. In the light of this, Kaan (1992) and Zwart (1993) have outlined a minimalist (Chomsky 1993) and 'antisymmetric' (Kayne 1993) account of VR and VPR constructions built on an underlying VO structure. The difference between VR and VPR then comes to lie, Kaan and Zwart argue, in the fact that AgrOP is generated outside the projection of V1 in the former, and inside V1's complement in the latter. This is illustrated in the (simplified) trees in (5). Overt-syntactic object movement to SpecAgrOP will then make (5a) yield the VR pattern while (5b) produces VPR.

(5) a.

```
           AgrOP
          /    \
       Spec    AgrO'
              /    \
           AgrO     VP1
                   /   \
                 V1     VP2
                       /   \
                     V2     NP
```

yields Verb Raising pattern (1a)

b.

```
           VP1
          /   \
        V1    AgrOP
             /    \
          Spec    AgrO'
                 /    \
              AgrO     VP2
                      /   \
                    V2     NP
```

yields Verb Projection Raising pattern (1b)

What Kaan (1992) and Zwart (1993) have shown is that a VO approach to word order in the West Germanic verbal cluster is feasible. They have not shown, however, that — beyond being conceptually more attractive due to its being embedded in the restrictive minimalist/antisymmetric framework — it is superior to the traditional OV accounts.

In this paper I shall address the minimalist analysis of Verb (Projection) Raising in detail, arguing that it *is* indeed superior to the OV-based analyses in (3)/(4). My empirical focus will largely be on West Flemish VPR constructions. I shall start out discussing an apparent paradox concerning the opacity/transparency of the VPR-cluster — the VPR-cluster appears to be fully transparent for *wh*-extraction but opaque to scope interactions. It will be shown that this paradoxical situation can be cleared up with the aid of a particular minimalist approach to scope interactions (Kitahara 1992), and that this in turn supports the minimalist VO approach to VPR. This will be the topic of section 2.

I shall then proceed, in section 3, to fleshing out the structure of VPR constructions, arguing on the basis of empirical and theoretical considerations that the complement of VPR-verbs is not AgrOP but TP. With that in mind, section 4 then briefly returns to some of the scope facts addressed in section 2, and eliminates the remaining vestiges of the transparency/opacity paradox by crucially invoking the minimalist locality theory (centred around the notion of *equidistance*; Chomsky 1993).

Having dealt with the crucial scope facts, I shall then address, in section 5, the typological question of what determines the distribution of Verb Projection Raising. Why do only some dialects of the West Germanic language family exhibit VPR phenomena? It will be shown that the distribution of VPR is an immediate consequence of a simple lexical property of V(P)R-verbs: their (in)ability to take TP complements. This proposal will be supported on the basis of a discussion of a set of facts from the West Flemish motional *goan* construction, which will be shown to be elusive from the perspective of the OV analysis, but which can receive a natural account given the minimalist VO approach developed here.

In section 6 I shall then address the VPR patterns in causative constructions, showing that, given the OV analysis of V(P)R developed here, the fact that the 'causee' cannot be included in the VPR-cluster immediately embedded under the causative verb follows directly from the Case Filter. Section 7 subsequently broadens the scope of investigation to include Italian clitic (non-)climbing constructions, which exhibit a striking empirical parallelism with V(P)R constructions. This parallelism calls for a unified account of the two phenomena, the outlines of which are sketched in section 7. A summary of the major findings and theoretical consequences closes the paper.

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2. A paradox: the opacity/transparency of the VPR cluster

2.1. The facts

Haegeman & Van Riemsdijk (1986) have observed that *wh*-extraction and R-movement from VPR-clusters is generally possible, both in West Flemish (cf. (7)) and in the Swiss German dialect of Züritüütsch (cf. (6)).[2]

(6) *was* hät er wele *e* für büecher läse?
     what has he want for books read
     'what kind of books did he want to read?'

(7) a. dan-ze *doa* willen een besprekinge *e* van moaken
        that they there want a review of make
        'that they want to make a review of that'

   b. *woa* dan-ze willen een besprekinge *e* van moaken
        where that they want a review of make
        'of which they want to make a review'

These facts immediately plead against a VP/NP-incorporation analysis of VPR of the type in (4a), on the plausible assumption that the complex X^0 category created by VP/NP-adjunction to V is opaque to all extraction. Depending on one's assumptions regarding the extraction possibilities from adjuncts, it may also discredit the extraposition/raising analysis of VPR instantiated by (4b). The extraction facts in (6) and (7) are of course fully compatible with the PF-inversion analysis in (4c) (which assumes no syntactic manipulation of the verbal string whatsoever), and also with the VO analysis in (5b). So far, then, the extraction facts seem to already allow us to substantially narrow down the set of analytical options.

Interestingly, however, the empirical lie of the land is more complex than this, as is evident from an inspection of the *scope* properties of VR and VPR constructions. Haegeman & Van Riemsdijk (1986) observe that while (1a) is scopally ambiguous between a reading in which *geen* is in the scope of the modal verb *wilt* (most lucidly paraphrasable as 'what Jan wants is to eat no meat') and one in which *geen* takes scope over the modal verb ('what Jan does not want is to eat meat'), (1b) only has the former reading. The two readings are even more clearly distinguishable in the example pair in (8):

(8) a. da Jan geen toelating hee durven geven   *(geen toelating >/< durven)*
        that Jan no permission has dare give

   b. da Jan hee durven geen toelating geven   *(geen toelating *>/< durven)*

While (8a) can mean both 'what Jan dared to do was to give no permission' and 'what Jan did not dare to do was to give permission', the VPR construction in (8b) only has a reading in which *geen toelating* 'no permission' is in the scope of *durven* 'dare', hence can only mean 'Jan dared (was so daring as) to give no permission'.

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2 Not only *overt wh*-extraction but perhaps also LF *wh*-movement — if it exists (cf. Chomsky 1993). Thus, the multiple *wh*-construction in (i) (Haegeman & Van Riemsdijk 1986:451), with a cluster-contained *in situ wh*-phrase (*voo wekken cursus* 'for which course'), is grammatical, which may show that LF *wh*-movement from the VPR-cluster is possible. But Haegeman (1992:122) rejects this conclusion, pointing out — correctly — that *voo wekken cursus* is a D-linked *wh*-phrase, hence presumably not subject to LF movement; VPR constructions with cluster-contained *non*-D-linked *wh*-phrases are ungrammatical, Haegeman points out (cf. (ii)). Since it is not my objective in this paper to discuss the analysis of *wh-in-situ*, I shall leave questions pertaining to the facts in (i) and (ii) open.

(i)   Kweten nie wien dan-ze goan willen *voo wekken cursus* anduden
       I know not whom that-they want for which course indicate
(ii)   *Kweten nie wien dat-ter goat *wien* anduden
       I know not who that there goes whom indicate

Apparently, then, the VPR-cluster is transparent to *wh*-extraction and R-movement, but opaque to scope interactions, which are commonly treated, in any event in the pre-minimalist literature, in terms of LF A'-movement of a type similar to *wh*-extraction. This looks like a surprising paradox. What I shall do in the remainder of this section is to first of all discard a possible way out suggested by Haegeman (1992), then to investigate what the OV analysis could do with these data, and finally to work my way towards a final account of the facts phrased in minimalist terms and based on the VO analysis.

2.2. The paradox is real

Haegeman (1992:120–21) calls the significance of (6)/(7) into question. She sketches an account of these facts that eliminates them as a potential threat to a general ban on extraction from VPR-clusters. Let us first of all consider how Haegeman (1992) captures the scopal opacity of the VPR-cluster. Recall that Haegeman (1992) (in contrast to some earlier studies to which she contributed) analyses VPR in terms of rightward adjunction of VP to a maximal projection. The extraposed VP will constitute a barrier by lack of L-marking. Extraction out of VP will hence minimally violate the subjacency condition, potentially also (depending on the type of extractee) the ECP. The scopal opacity of VPR-clusters is now supposed to follow from the barrierhood of the extraposed VP (on the assumption that Quantifier Raising (QR) is responsible for the possibility of wide scope of the negatively quantified NP in the a–examples in (1) and (8)). Note, however, that this is far from immediately obvious. Invoking subjacency to filter out the wide scope readings in the b–examples of (1) and (8) will not do since subjacency is generally taken not to hold at LF. And even if it did hold at LF, there would seem to be no reason why QR could not obtain via intermediate adjunction to the extraposed VP — adjunction to VP is generally applicable in the *Barriers* theory; it is unclear why such intermediate adjunction should be barred once VP is extraposed (also cf. below). The only viable option would hence appear to be to rule the wide scope readings out with the aid of the ECP. However, on a disjunctive formulation of the ECP, according to which lexical government is sufficient in the case of object extraction, (1b) and (8b) are not rejected by the ECP. After all, the cluster-contained quantified NPs in these examples are the object of the embedded verb. Given the possibility of an intermediate VP-adjoined trace, a conjunctive ECP, which would require antecedent government even in the case of object extraction, would not successfully rule out (1b)/(8b) with wide scope for the *geen*-QP either: the trace of the QR-ed object would be antecedent governed by the intermediate VP-adjoined trace, and this intermediate trace in its turn would be antecedent governed by the QR-ed quantified expression. The representations of the wide scope readings of the b–examples in (1) and (8) hence do not obviously violate any principle of the theory, on Haegeman's analysis of these facts in terms of LF Quantifier Raising.

Let us for the moment disregard this conclusion, however, and suppose that some explanation (in terms of the ECP, most likely) for the unavailability of wide scope for the cluster-contained *geen*-QP in the VPR sentences can be found. Then what about *wh*-extraction and R-movement, as in (6) and (7)? Here, Haegeman (1992:121) suggests that a way of analysing them would be to extract while VP is still in its base position, and then to extrapose the VP after extraction has taken place. VPR then affects the VP containing the trace of the *wh*-moved or R-moved element. Haegeman does not develop this account any further; it can easily be seen not to work. Of course the trace inside the extraposed VP will have to be licensed. In (7) we might perhaps want to invoke lexical government (by the preposition *van* 'of') to save the construction, but such an account is unlikely to carry over to the *was für*-split case in (6), since the trace of *was* is presumably not lexically governed. Besides, given a conjunctive formulation of the ECP (which is conceptually more attractive than a disjunctive one), we would need antecedent government of the trace left in VP anyway. So the question is: can this VP-internal trace be antecedent governed? If the answer is affirmative (see previous paragraph), then the examples in (6) and (7) fall out right. But then, by parity of reasoning, the scope facts in (1b) and (8b) do not follow — given that the ECP unquestionably applies at LF. If, conversely, antecedent

government of the VP-internal trace should somehow be impossible, the scope facts are readily predicted. But in that case, of course, we are at a loss accommodating the transparency of the VPR cluster to *wh*-extraction and R-movement. All in all, it seems that no account can be formulated (given the OV analysis of VPR and the *Barriers* theory in which it is embedded, including an LF-movement approach to the scope interactions in (1) and (8)) that at the same time captures (1b)/(8b) as well as (6)/(7).

There is no point, then, in trying to deny the paradox that these sets of examples confront us with — the paradox is real, and calls for an explanation. In what follows, I shall essentially focus on the scope facts in (1) and (8); the overt-syntactic extraction cases (which the OV analyses in (4a,b) potentially have trouble accommodating; cf. above) will be unproblematic on the analysis proposed.

2.3. The scope facts and the OV analysis

What could the OV analysis say about the scope facts in (1) and (8)? It seems clear that it will be essential on such an analysis that in the VR constructions (the a–examples) *scrambling* of the object takes place (or, if (3a) is adopted, *may* take place) while in the VPR examples there is no NP-scrambling into a position outside the embedded VP (given word order). The generalisation must apparently be that in the absence of scrambling, the *geen*-QP cannot take scope over the modal verb.

While not impossible, such a generalisation would be surprising from the perspective of a theory (such as *Barriers*) in which scope is determined at LF via applications of QR. There is no reason to expect QR to be inapplicable to non-scrambled QPs. In order for the OV analysis to be able to say anything sensible about the scope facts in (1) and (8), then, it turns out that it should deny the existence of LF QR, and should assume instead that scope relations (in any event in languages featuring scrambling) are directly encoded at S-structure (cf. Rutten 1991:57). A coherent and full-fledged theory incorporating such an idea is certainly not unfeasible or unattractive. In fact, I shall opt for a QR-less approach to scope presently (cf. Kitahara 1992) — an analysis which crucially presupposes the minimalist theory of Case, in terms of feature-checking NP-movement to SpecAgrP. The crucial point is (and I shall make this point in more detail below) that a theory incorporating this particular approach to scope immediately captures the West Flemish scope and word-order facts on a VO analysis of the West Flemish phrase structure, while the OV analysis needs VP extraposition *in addition to* object movement to SpecAgrOP to get the word order to fall out right.

2.4. Scope without QR: Kitahara's (1992) minimalist analysis of scope interactions

As said, the scope facts in (1) and (8) seem tractable only if the existence of scope-assigning LF-movement is denied. Kitahara (1992) has presented an interesting alternative to the QR approach to scope interactions which (far from rendering LF superfluous) allows the theory to eliminate the concept of QR (which, from a minimalist perspective, is suspect given that it presumably is not a feature-checking operation; but cf. Stowell & Beghelli 1994). I shall first of all briefly outline the essentials of Kitahara's proposal, returning to the West Flemish scope facts in section 2.5.

Consider the minimal pair in (9):

(9) a. Someone loves everyone   (*someone* > / < *everyone*)
     b. Who loves everyone?   (*who* > /* < *everyone*)

Kitahara (1992) develops a theory of scope interactions built on Aoun & Li's (1991) Scope Principle (given in (10)) and his own hypothesis in (11):

(10)   *Scope Principle* (Aoun & Li 1991)
         A quantifier A has scope over a quantifier B in case A c-commands a member of the chain
         containing B

(11)   *Chain Formation* (Kitahara 1992:56)
         Each feature-checking operation creates a *distinct* chain

In addition, Kitahara assumes Chomsky's (1993) checking approach to movement, and accordingly assigns the examples in (9a,b) the following structural analyses (where I have collapsed AgrSP and TP into a single IP, for ease of representation):[3]

(12)   [$_{IP}$ someone$_i$ I [$_{AgrOP}$ everyone$_j$ AgrO [$_{VP}$ t_i loves t_j]]]
(13)   [$_{CP}$ who$_i$ C [$_{IP}$ t_i^x I [$_{AgrOP}$ everyone$_j$ [$_{VP}$ t_i^y loves t_j]]]]

Kitahara now correctly predicts scopal ambiguity in (12). After all, *someone* c-commands *everyone*, and *everyone* c-commands a member of the chain containing *someone* (viz. the trace t_i of *someone*). In (13), on the other hand, while *who* c-commands *everyone* and can accordingly take scope over the universal QP, *everyone* cannot have scope over *who*. This is so because *everyone* does not c-command a member of *the chain containing who* — *everyone* does c-command t_i^y, but this trace is a member of the chain (t_i^x, t_i^y), a chain that does not contain *who*; *who* is a member of the chain (*who*, t_i^x), which is a separate chain (since it involves a different feature-checking operation — viz. checking of the *wh*-feature) of which no member is c-commanded by *everyone*. The combination of (10) and (11) thus leads us conclude that the only reading that (13) can yield is one in which *who* takes scope over the universal quantifier — a prediction that is borne out by the facts.

2.5. The scope facts and the VO analysis

I shall adopt Kitahara's (1992) theory of scope assignment, and extend it somewhat so that it no longer makes specific reference to quantifiers but is generalised to apply to all scope-assigning elements. To this end, I generalise the Scope Principle in (10) to (14):

(14)   *Scope Principle* (extended)
         X has scope over Y if X c-commands a member of the chain containing Y

When we now consider the structure of the VR constructions in (1a) and (8a), given in (5a) and (15a), below, we can easily accommodate the scopal ambiguity of these a–examples. The object is moved to SpecAgrOP. In the structure of the VR examples, then, the moved NP c-commands the modal verb and can hence take scope over the modal, while at the same time the modal c-commands the trace of the moved object and may hence have scope over the *geen*-QP.

(15) a.   [$_{AgrOP}$ OB$_i$ [$_{AgrO'}$ AgrO [$_{VP1}$ Vmodal [$_{VP2}$ V2 t_i]]]]
     b.   [$_{VP1}$ Vmodal [$_{AgrOP}$ OB$_i$ [$_{AgrO'}$ AgrO [$_{VP2}$ V2 t_i]]]]

In the structure of the VPR examples, by contrast, the object never raises to a position c-commanding the modal verb, as is evident from the structures in (5b)/(15b). At no point, then, will the object be able to take scope over the modal verb. The rigid scopal semantics of the b–examples in (1) and (8) — in which the modal always takes scope over the *geen* — thus follows.

The scope facts in V(P)R constructions can thus be accommodated crucially *without* invoking QR, but instead in terms of Kitahara's (1992) minimalist approach to scope interactions, in which the role played by feature-checking movement to SpecAgrOP is essential. Such an analysis of scope interactions presupposes the existence of AgrOP. A VO account of West Flemish phrase structure which leaves the position of the AgrOP free (cf. (5)) immediately accommodates both word order and scope in V(P)R constructions without any further ado. An OV-based account, by contrast, will in addition

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3   Movement of the object to SpecAgrOP takes place no sooner than at LF in English; this, however, is of no consequence here

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continue to need a V/VP-raising operation to accommodate word order, and is hence less economical (in a global sense). Moreover, the existence of AgrOP is well motivated; that of rightward V/VP-movement much less so. In sum, then, the scope facts in V(P)R constructions in West Flemish furnish an empirically based argument in favour of the VO approach to word order in the West Germanic verbal cluster.

2.6. More on scope

So far I have concentrated on scope interactions between a quantified NP and a modal verb. Haegeman (1988, 1992) presents some facts which appear to show that in the domain of scope interactions between two quantified NPs, too, VPR constructions exhibit interesting properties. I shall start out discussing Haegeman's cases, setting them aside as misanalysed cases of the same type as the examples discussed above. I then go on to show, with the aid of a new set of facts not previously discussed in the literature, that scope interactions between two quantified NPs in VPR constructions *are* in fact very interesting. In this section, this latter set of facts will merely be introduced; I shall have to postpone discussion of them until after the structure of VPR constructions has been developed in sufficient detail.

Haegeman (1988:675–77) (also cf. Haegeman 1992:144–47) discusses a paradigm of the type in (16) and claims that in (16a) each QP can take scope over the other while (16b,c) are both scopally unambiguous, *geen boeken* 'no books' necessarily being in the scope of *al de studenten*.

(16) a.   dan ze al de studenten geen boeken wilden geven
          that they al the students no books wanted give
     b.   dan ze al de studenten wilden geen boeken geven
     c.   dan ze wilden al de studenten geen boeken geven

An XP-incorporation analysis of VPR (where X = N/V; see (4a) and Haegeman 1988) may straightforwardly capture the apparent scope facts with the aid of a QR account of scope interactions, by declaring the incorporation complex an island for QR (as seems plausible). With Rutten (1991:56) and also Haegeman (1992), however, I reject any XP-incorporation approach to VPR on account of its incompatibility with a restrictive theory of adjunction.

Haegeman's (1992) alternative, VP extraposition, can presumably accommodate (16b) by appealing to the (alleged) opacity of the VPR-cluster (but see above), but would leave it a mystery why (16c) is scopally rigid as well — *unless*, as Rutten (1991:57–58) assumes, (i) the application of scrambling (and not LF QR) is responsible for scope relations (in any event in scrambling languages; cf. also above), (ii) scrambling involves movement to a functional projection, and (iii) VPR involves extraposition of VP and not of some functional projection. These three assumptions taken together might accommodate (16c).[4]

Ingenious though Rutten's (1991) suggestion may be,[5] it is fruitless. The thing is that Haegeman misrepresents what is going on in the paradigm in (16). It is *not* the case that *geen boeken* ever takes scope over *al de studenten* in *any* of the examples in (16). None of the examples has a reading which can be paraphrased as 'there are no books of which it holds that they gave them to all students' — the reading that would correspond to wide scope of *geen boeken* with respect to *al de studenten*. Instead, what the scopal ambiguity of (16a) comes down to is that in this example, *geen* may take scope over the modal verb *wilden*. This is clear from Haegeman's (1992) paraphrase of the pertinent

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4   It remains unclear how Haegeman herself accounts for (16c) with the aid of her VP extraposition analysis. While she does discuss the theoretical roots of all other scope facts that she brings up in the course of her exposition of the properties of VPR, she never actually returns to the facts in (16).

5   Note that, in view of Vanden Wyngaerd's (1989) work, Rutten (1991:59) himself leaves open the possibility that VPR does in fact involve extraposition of a functional projection, AgrOP. But if so, then his explanation for the scopal rigidity of (16c) collapses.

'wide scope' reading of (16a) — roughly, 'they did not want all students to get books'. The example in (16) does not instantiate a scopal interaction between the two QPs; instead, what the ambiguity of (16a) instantiates is precisely what the examples in (1a) and (8a) also illustrate — scopal interaction between the negation (*geen*) and the modal verb. The fact that the negation can take scope over the modal verb in (16a) but not in (16b,c) follows immediately from the analysis of section 2.5.

It can be shown that scopal interaction between two cluster-contained QPs *is* in fact possible in West Flemish VPR constructions. In order to show this, we need examples in which scope interactions in double object constructions are easier to get than in examples of the type in (16). Specifically, we need double object constructions featuring two numerally quantified objects, as in (17):

(17) a. dan ze twee studenten vier boeken wilden geven   (2 > / < 4)
           that they two students four books wanted give
     b. dan ze twee studenten wilden vier boeken geven   (2 > /* < 4)
     c. dan ze wilden twee studenten vier boeken geven   . (2 > /' < 4)

Liliane Haegeman (p.c.) tells me that (17a) is definitely ambiguous between a reading in which precisely four books are at stake (wide scope for *vier boeken*) and one in which the total number of books is eight (narrow scope for *vier boeken*), that (17b) is not ambiguous, only the narrow-scope reading for *vier boeken* being available, and that (17c) — like (17a) but perhaps not as easily — seems to allow both a narrow-scope and a wide-scope reading for *vier boeken*. Of the three examples, then, only the 'splitting' example (which has one object inside and one outside the verbal cluster) is definitely unambiguous; I shall take the other two to be ambiguous, leaving the question of why the wide-scope reading for *vier boeken* seems less easy to get in (17c) open.

Now it seems troubling that (17b) does not allow for a wide-scope reading of *vier boeken*, particularly because this seems to indicate that the VPR-cluster is scopally opaque after all, so that the paradox that we started out with (viz.: VPR-cluster opaque for scope but transparent for syntactic movement) appears to rear its head again. Much as I would like to dig deep straightaway, I shall have to postpone a full discussion of the paradigm in (17) to section 4, turning to a further development of the structure of VPR constructions first.

3. The structure of Verb (Projection) Raising constructions

The structure of Verb Projection Raising constructions has so far not been explicitly addressed beyond the assumption that the AgrOP in which the object is Case-licensed finds itself in the complement of the VPR-verb in VPR constructions. In (5b) I have simply assumed, essentially following Kaan (1992), that the complement of a VPR-verb is a 'bare' AgrOP, no additional functional projections intervening between V1 and VP2. There are, however, both empirical and technical considerations that plead for an elaboration of this overly simplistic structure.

Empirically, the AgrOP complementation analysis is discredited by Q-Float facts of the type in (18c) (cf. Haegeman & Van Riemsdijk 1986:445):

(18) a. K peinzen dan *al* de studenten goan moeten een boek van Conscience lezen
          I think that all the students go have-to a book by Conscience read
     b. K peinzen dan de studenten *al* goan moeten een boek van Conscience lezen
     c. K peinzen dan de studenten goan moeten *al* een boek van Conscience lezen

The floating quantifier *al* in (18c) is part of the VPR-cluster, but does not find itself in the base position of the subject, since *een boek van Conscience*, the object which is moved to SpecAgrOP, follows *al*. Given an analysis of Q-Float in terms of Q-stranding (cf. Sportiche 1988) we are thus led to conclude that either (i) *al* is left behind in SpecVP and adjoins to AgrOP, or (ii) *al* is stranded in

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the specifier of a functional projection outside AgrOP. The former option is implausible from a minimalist perspective on movement, given that presumably no trigger for the adjunction to AgrOP can be identified. It is further called into question by a set of facts which even more clearly show that VPR constructions must feature a TP in the complement of the VPR-verb.

The West Germanic OV languages often allow the subject of the clause to be realised in a position that is demonstrably lower than SpecAgrSP. West Flemish even allows the subject of the clause to surface *inside the VPR-cluster*, as in the example in (19b) (Haegeman, p.c.):

(19) a. dan-der *vee studenten* dienen boek zoun moeten kopen
         that there many students that book should have-to buy
     b. dan-der zoun moeten *vee studenten* dienen boek kopen

While an adjunction–to–AgrOP approach might perhaps not be unfeasible in the case of floating quantifiers (also cf. Doetjes 1992), it certainly does not seem likely that the indefinite subject of impersonal constructions finds itself in an adjunction (hence A'-)position. Transitive expletive constructions like those in (19) presumably not being eligible for any other options except expletive (*der*) replacement, and expletive replacement being LF-movement of the 'associate NP' to SpecAgrSP (which is an A-position), the position from which the 'associate NP' is moved at LF must be an A-position (for otherwise 'improper movement' would result).

In the light of especially (19b), then, we are led to conclude that there must be a position for the subject outside the landing-site of the moved object in VPR constructions. I shall assume that this position is the specifier position of an embedded TP, and that the structure of VPR constructions hence reads as in (20):

(20) $[_{VP1}$ V1 $[_{TP}$ Spec $[_{T'}$ T $[_{AgrOP}$ Spec $[_{AgrO'}$ AgrO $[_{VP2}$ SU $[_{V'}$ V2 OB]]]]]]]]

We have so far encountered two pieces of *empirical* evidence for an enlargement of the initial structure in (5b). There is also a *technical* reason why (5b) is inadequate, given the theory of locality developed in Chomsky (1993). Suppose that the structure of a VPR construction were to read as in (21):

(21) $[_{VP1}$ V1 $[_{AgrOP}$ Spec $[_{AgrO'}$ AgrO $[_{VP2}$ SU $[_{V'}$ V2 OB]]]]]]

In order that the subject (SU) can reach the matrix subject position (not pictured) in agreement with the minimalist locality theory, its first available landing-site (SpecVP1) should be *equidistant* from the position crossed in the process of movement (SpecAgrOP, OB's landing-site). This is possible only if AgrO incorporates into V1. In Den Dikken (1994b) I have argued that the verb *be* is unique in its ability to incorporate the Agr-head of its complement; no other verbs have this property. Now, since V1 in the VPR constructions under discussion is a modal verb, and not *be*, AgrO incorporation will be excluded, and hence a grammatical derivation of a VPR construction built on (21) (cf. (5b)) is impossible.

The extended structure in (20), by contrast, does cater for a well-formed derivation of VPR constructions. The relevant ingredients of the derivation are summarised in (22):

(22) a. OB–to–SpecAgrOP, contingent on V–to–AgrO (not necessarily overt; Den Dikken 1994a:fn. 3)
     b. SU–to–SpecTP, contingent on AgrO–to–T

AgrO–to–T movement is not lexically restricted, unlike AgrO incorporation into V. SpecTP and the SpecAgrOP position which is skipped in the movement operation that the subject of VP2 undergoes can thus be rendered equidistant from SU's extraction position, in accordance with the exigencies of the minimalist locality theory.

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The minimalist locality theory can thus be shown to effectively force the presence of a TP in the complement of the verb in VPR constructions on purely structural grounds.[6] Now that we have seen how the grammatical derivation of VPR constructions works, let us briefly return to VR constructions and ask if V1 can take a TP complement there. The answer turns out to have to be negative — the complement of V1 in a VR construction cannot be any larger than VP2. To see this, consider the structures in (23) and (24):

(23) $[_{AgrOP}$ Spec $[_{AgrO'}$ AgrO $[_{VP1}$ SU $[_{V'}$ V1 $[_{VP2}$ V2 OB]]]]]

(24) $[_{AgrOP}$ Spec $[_{AgrO'}$ AgrO $[_{VP1}$ V1 $[_{TP}$ Spec $[_{T'}$ T $[_{VP2}$ SU $[_{V'}$ V2 OB]]]]]]]

The structure in (24) does not yield a well-formed derivation of a VR construction, for OB can never reach SpecAgrOP crossing both SU and SpecTP. A derivation built on (23), on the other hand, is grammatical if V1 is moved to AgrO.[7]

In sum, then, VPR constructions feature a TP in the complement of V1 (inside which the AgrOP hosting the embedded verb's object finds itself), while VR constructions feature a V1 taking a bare VP complement.

4. Scope revisited

With this in mind, let us now return to the triplet in (17), repeated below, and the structures which may underlie these sentences (on the assumption that double object constructions feature two AgrOPs, labelled AgrIOP and AgrDOP), which are given in (25):

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6   There may also be a semantico-syntactic way of forcing the presence of TP (in any event in modal VPR constructions, the typical case), if (i) modals in VPR constructions are deontic modals, and (ii) deontic modals have a thematic subject controlling a PRO in the complement of the modal (cf. e.g. Klooster 1986). On the assumption that this PRO subject must check a 'null Case' feature, and that SpecTP is the place to check this feature (cf. Chomsky & Lasnik 1991), the presence of TP is guaranteed. It is not clear, however, that modals in VPR constructions are always, of necessity, deontic. At the end of the paper, in connection with the discussion of the parallels between V(P)R and clitic (non-)climbing (section 7), I shall present some semantic evidence in favour of the TP vs. no TP contrast, coming from the domain of temporal adverbial modification.

Haeberli & Haegeman (1992:fn. 5) also present evidence that the structure of VPR-complements must be larger than 'bare VP', showing that it can contain a projection of the negative head, NegP. The evidence in question concerns the fact that the example in (i) has a so-called negative concord reading, which on Haegeman's assumptions is indicative of the presence of NegP.

(i)   da Valère durft tegen niemand nieks nie zeggen
            that Valère dares against no one nothing not say
            'that Valère dares not to tell anything to anyone'

There is often taken to be a close relationship between NegP and TP (cf. Zanuttini 1991), the former being generable only in the presence of the latter. Given this, facts of the type in (i) may be taken to further support our conclusion that the complement of VPR-verbs is a TP.

7   I assume that SU is base-generated here in the specifier position of VP1, not in SpecVP2 (cf. Den Dikken 1994a for a brief discussion of this issue in connection with perfective constructions). The idea is that whenever two categorially identical projections are stacked immediately on top of each other, so that a structure of the type in (i) results, the two projections in a sense 'merge' into one, sharing a single set of domains. The external θ-role assigned by V2 in the structure in (23) can then find its way (via uninhibited percolation) to the specifier position of VP1 (which is headed by a verb that does not assign an external θ-role of its own); with respect to external θ-role assignment, then, V2 is the head of the $[_{VP1} ... V1 [_{VP2} V2 ...]]$ structure.

(i) $[_{XP1} ... X1 [_{XP2} ... X2 ...]]$, where X1 = X2 ε {A,N,P,V,F} (F = any functional head)

We shall encounter other instances of this 'stacked structure' in the next sections. Using Broekhuis' (1993b) term, I shall be referring to this type of structure as one featuring a *lexical chain* of two categorially identical heads (although calling it a lexical *chain* may cause potential problems of technical execution; I shall sidestep these, however, entitling the creative reader to his/her own favourite choice of dubbing the structural configuration in (i)).

(17) a. dan ze twee studenten vier boeken wilden geven (2 >/< 4)
   b. dan ze twee studenten wilden vier boeken geven (2 >/*< 4)
   c. dan ze wilden twee studenten vier boeken geven (2 >/'< 4)

(25) a. [$_{AgrIOP}$ Spec [$_{AgrIO'}$ AgrIO [$_{AgrDOP}$ Spec [$_{AgrDO'}$ AgrDO [$_{VP1}$ SU [$_{V'}$ V1 [$_{VP2}$ V2 IO DO]]]]]]]

   b. [$_{AgrIOP}$ Spec [$_{AgrIO'}$ AgrIO [$_{VP1}$ V1 [$_{TP}$ Spec [$_{T'}$ T [$_{AgrDOP}$ Spec [$_{AgrDO'}$ AgrDO [$_{VP2}$ SU [$_{V'}$ V IO DO]]]]]]]]]

   c. [$_{VP1}$ V1 [$_{TP}$ Spec [$_{T'}$ T [$_{AgrIOP}$ Spec [$_{AgrIO'}$ AgrIO [$_{AgrDOP}$ Spec [$_{AgrDO'}$ AgrDO [$_{VP2}$ SU [$_{V'}$ V IO DO]]]]]]]]]

Of these structures, (25a,c) yield relatively unproblematic derivations.[8] A derivation of (17b) purely involving NP-movement, however, is impossible — IO can never reach SpecAgrIOP crossing SU, SpecAgrDOP and SpecTP in (25b). This leads me to conclude that the derivation of (17b) does *not* in fact involve NP-movement of the indirect object to a SpecAgrIOP position outside the verbal cluster. Instead, the indirect object in (17b) is *scrambled* outside the verbal cluster. I shall not speculate here on the nature of scrambling; suffice it to say that it is not a Case-feature checking operation, and that it might involve adjunction to VP1 or movement to some functional projection. The essential point is that in the derivation of (17b) the step that IO takes to end up to the left of V1 in the surface order cannot, on minimalist assumptions, involve Case-driven NP-movement.

More specifically, I shall assume that, since the indirect object must get its Case feature checked before scrambling, the structure of (17b) is based on that of (17c) (given in (25c)). The derivation of (17b) then proceeds as follows. OB moves to SpecAgrDOP and IO first moves to SpecAgrIOP (which finds itself in the complement of V1) after which IO takes an additional (non-NP-movement) step to a position to the left of V1 (*scrambling*). The derivation is summarised in (26):

(26)   IO$_i$ [$_{VP1}$ V1 [$_{TP}$ SU$_k$ [$_{T'}$ T [$_{AgrIOP}$ t_i^s [$_{AgrIO'}$ AgrIO [$_{AgrDOP}$ DO$_j$ [$_{AgrDO'}$ AgrDO [$_{VP2}$ t_k [$_{V'}$ V2 t_i^s t_j]]]]]]]]]]]

With this in mind, we may now finally return to the scope facts discussed in section 2. Recall that in (17a,c) either QP can take scope over the other; in (17b), however, *vier boeken* can only have narrow scope with respect to *twee studenten*. This now naturally follows from the Scope Principle (14) and Kitahara's (1992) Chain Composition (11). While DO (*vier boeken*) c-commands t_i^s, this is not a member of the chain containing the indirect object *twee studenten* but instead of the chain (t_i^s, t_i^s); IO is a member of the chain (IO$_i$, t_i^s), but no member of this chain is c-commanded by DO at any point in the derivation. The Scope Principle and (11) thus guarantee — correctly — that DO cannot take scope over IO in (17b). In the other two constructions, both DO and IO move only once, in a 'crossing paths' fashion. As a result, the Scope Principle predicts that there will be scopal ambiguity in these examples, which is in agreement with the facts.

The scopal properties of the paradigm in (17) thus follow from a minimalist analysis of the word order of VR and VPR constructions, in combination with the Scope Principle (based on Aoun & Li's 1991 work) and Kitahara's (1992) Chain Formation condition in (11), both of which are independently supported. Notice that no reference is made anywhere in the analysis to the putative opacity of the VPR-cluster — nothing in the domain of scope facts leads us to assume that this cluster is opaque to movement. The paradox that we started out from (viz. that the VPR-cluster appears to be opaque for scope but transparent to *wh*-movement and R-movement) thus vanishes.

5. On the distribution of Verb Projection Raising

Not all West Germanic languages feature Verb Projection Raising. Standard Dutch and German lack it, but some of their dialects (West Flemish and other varieties of Belgian Dutch; various Swiss German dialects) do feature it, to a greater or lesser extent. What determines the cross-linguistic distribution of VPR?

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8 I assume that IO can skip SpecAgrDOP and SU can skip both SpecAgrOPs if the two AgrOPs are stacked immediately on top of each other (cf. fn. 7). See Collins & Thráinsson (1993) for a different solution to the locality problem posed by double AgrOP constructions.

The analysis of VPR just outlined gives us a handle on this tricky question. Recall that VPR constructions must always involve a TP in the complement of the VPR-verb. Let us assume, then, that VPR languages and non-VPR languages can be distinguished in terms of a lexical property of their verbs — while verbs (esp. modals) in VPR languages can take TP complements, verbs in non-VPR languages cannot:

(27)   (Modal) auxiliaries select TP — {*yes* (VPR)/*no* (no VPR)}

While this might not seem to be a very illuminating way of accounting for the difference between the two language types, the fact of the matter is that the two language types are otherwise remarkably similar; the existence of VPR patterns in a language does not seem to be intimately linked to other structural factors. A difference in lexical selectional properties then does not seem implausible.

Moreover, the idea that selection of category type determines the distribution of V(P)R seems to be supported by a set of facts that is hard to understand from the perspective of an OV analysis of VPR but which is tractable on a VO approach that takes TP selection to be the crucial characteristic of VPR-verbs — the West Flemish motional *goan* construction.

The West Flemish motional verb *goan* 'go' can be used as an auxiliary that expresses that the subject must undergo a change of location in order to be able to execute the action expressed by the main verb. This use of *goan* is illustrated in (28) (cf. Haegeman 1992:195):

(28)   me *gingen* vroeger atent *(*gon*) zwemmen in de lak   (Haegeman 1992:195)
          we went formerly always go swim in the lake
          'we used to go swimming in the lake'

Doubling of finite *goan* in this type of construction is obligatory, as (28) shows. In its use as an auxiliary, (non-finite) *goan* does not act as a VPR-verb (cf. (29)). More strikingly, however, not only doesn't it allow its own complement to be a VPR infinitive, it does not allow the verb that *goan* embeds to take a VPR complement either. This is shown in (30).

(29) a.   dan-ze *in den lak* goan goan vissen   (Haegeman 1992:196)
          that they in the lake go go fish
     b.   dan-ze goan *in den lak* goan vissen
     c.   *dan-ze goan goan *in den lak* vissen
(30)   *da Valère Jan gink goan doen *zenen oto* wassen
          that Valère Jan went go make his car wash

Haegeman (1990, 1992, 1994) assumes that *goan* must incorporate a verb (cf. De Schutter 1974 for an early suggestion of this type, *goan* being analysed as affixal), and in this way immediately accounts for (29c), given her VP extraposition analysis of VPR — VP is an adjunct, head movement out of which is taken to be impossible. This account is then carried over to (30) on the assumption (which is spelled out explicitly in Haegeman 1994, and is based on work by Vanden Wyngaerd 1989 and Den Besten & Broekhuis 1989, the latter referring to it as a 'perceptual strategy') that once you apply VPR somewhere in the tree, you should continue to apply VPR all the way up, in all higher cycles. Then (30) can be ruled out (by invoking the island character of the extraposed VP, along Haegeman's lines), while (28) and (29a,b) (in which no VPR obtains in any cycle below motional *goan*) are still ruled in.

However, apart from the fact that it is not obvious that head-movement out of an adjunct of the head of the adjunct is impossible (cf. Den Dikken 1992:13), it is questionable that a 'tenacity' requirement on VPR ('I've started so I'll finish') can have any general validity — it is violated by several West Germanic dialects, including West Flemish itself. Consider first the early Middle English example in (31), in which VPR on the lowest cycle is followed by non-raising higher up:

(31)　　whase wilenn shall þiss boc efft oþerr siþe writenn, himm bidde icc þatt hët write rihht
　　　　whoever want shall this book afterwards another time write him ask I that he it write right
　　　　'whoever shall wish to write this book afterwards another time, I ask him that he write it
　　　　accurately'　　　　　　　　　　　　　　　　　　　　　　　　*(Ormulum* D.95; Palmatier 1969)

Here, *wilenn shall* is not inverted (hence no VPR obtains here), but VPR *is* applied to the projection
of the lowest verb, *writenn*. Now this is just a case of one fairly isolated example from medieval
English; proponents of the 'tenacity' condition on VPR might not be very impressed. But for
Afrikaans, too, it seems that this requirement cannot be upheld. This is shown by the Afrikaans
examples in (32a) (taken from Broekhuis 1993a:fn. 7) and (32b,c) (Hans den Besten, p.c.):

(32) a.　dat hy die boek kon laat terugstuur het　　　　　　　　　　　　(Afrikaans)
　　　　　that he the book could let back-send have
　　　　　'that he could have had the book sent back'
　　　b.　dat hulle begin tee drink het
　　　　　that they begin tea drink have
　　　　　'that they have begun to drink tea'
　　　c.　dat ons hulle laat Afrikaans praat het
　　　　　that we them let Afrikaans speak have
　　　　　'that we had them speak Afrikaans'

In these examples, the most deeply embedded verb plus a particle or a bare object inverts with the
immediately higher verb *(laat, begin)*, but in the immediately higher cycle no inversion with *het* takes
place. While these are not incontrovertible cases of VPR,[9] they can nonetheless be seen to make a
case against the 'tenacious VPR' hypothesis. For suppose that these examples involved 'mere' Verb
Raising (the non-verbal elements in the verb cluster incorporating into the lowest verb; see fn. 9).
Then the derivation of especially (32a) would involve 'zigzagging' verb movement — right-adjunction
of *terugstuur* to *laat*, followed by left-adjunction of *laat terugstuur* to *het*, in turn followed by right-
adjunction of *laat terugstuur het* to *kon*. Such 'zigzagging' V-movement does not seem particularly
attractive. Although it is not altogether inconceivable that individual verbs can have different morphol-
ogical 'subcategorisation' frames specifying whether raised verbs adjoin to their left or right, one
would rather keep the locus of V-adjunction constant, particularly in the light of Kayne's (1993)
antisymmetry thesis. A VPR analysis of (32a) would involve VPR on the lowest cycle (resulting in
laat terugstuur), followed by non-raising on the next higher cycle, after which we do again apply
VPR to derive *kon laat terugstuur het*. Such a derivation does not involve 'zigzagging' movement.
It does signal, however, that it is possible to abstain from VPR after applying it at some earlier point
in the derivation, thus arguing against a general 'tenacious VPR' hypothesis.

　　One might still wish to claim, of course, that West Flemish (but not medieval English and Afri-
kaans) is subject to the restriction that once you start VPR you must go all the way. But apart from
the fact that such a constraint can clearly only be language-specific and (as Haegeman 1994 also
notes) has no obvious rationale, empirical evidence against it can be found even in West Flemish.
Consider (33) (a West Flemish rendition of Dutch *dat Valère dat boek zou hebben willen kopen*):

(33)　　da Valère zou willen dienen boek kuopen een　　(V1-V3-OB-V4-V2; Haegeman, p.c.)
　　　　that Valère would want that book buy have
　　　　'that Valère would have wanted/liked to buy that book'

9　The example in (32a) may well involve particle incorporation (but see Den Besten & Broekhuis 1992 for theoretical and empirical
objections to particle incorporation in West Germanic). The fact that the objects that are part of the verb cluster in (32b,c) must be
determinerless nouns may suggest a noun-incorporation approach to these examples; to the extent that *dat ons hulle laat goeie Afrikaans
praat het* 'that we made them speak good Afrikaans' is acceptable (which remains to be firmly checked), however, some doubt may be cast
on a N-incorporation analysis.

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In this example the VP *dienen boek kopen* undergoes VPR and thereby ends up to the right of the immediately higher modal *willen*, but the VP projected by the modal does not invert with the auxiliary of the perfect (in fact it cannot: **da Valère zou een (willen) dienen boek (willen) kuopen* is totally unacceptable).[10] All in all, it seems clear that the instrumental assumption on which Haegeman's OV-based account of *goan* constructions is built (viz. that something like a 'VPR tenacity constraint' holds) is dubious, and that hence there is sufficient reason to investigate whether the VO alternative developed in this paper can do better in providing a viable account of the VPR restrictions of West Flemish *goan* constructions. I shall endeavour to show that this is indeed the case.

Recall that, in order to be a VPR-verb, V must be able to take TP complements — cf. (27). Let us assume, then, that by way of a lexical property, *goan* (in its auxiliary usage discussed here) is unable to take a TP complement. Then what about (30)? Clearly, TP here does not find itself in the complement of *goan* itself but in the complement of *doen*:

(34)   Valère$_i$ [$_{AgrO1P}$ Jan$_j$ AgrO1 [$_{VP}$ goan [$_{VP}$ t_i doen [$_{TP}$ t_j T [$_{AgrO2P}$ zenen oto$_k$ AgrO2 [$_{VP}$ t_j wassen t_k]]]]]]]

The TP in *doen*'s complement is necessary (in this type of VPR construction) to allow the embedded subject (the 'causee', *Jan*) to reach the external SpecAgrO1P position. We can now rule out (30) with reference to the lexical inability of *goan* to take TP complements, if (i) we reformulate the restriction as in (35), and (ii) we assume that in an uninterrupted V–V sequence (such as *goan-doen* in (34)) the two verbs form a *lexical chain* with one shared set of domains (cf. Broekhuis 1993b and fn. 7, above).

(35)   West Flemish auxiliary *goan* does not allow a TP in the *internal domain* of its chain

The internal domain of the lexical chain (*goan, doen*) in (34) is TP. Since *goan* is part of this lexical chain, the condition in (35) is violated by the structure in (34). In this way (30) can be filtered out, in the same way as the example in (29c), on account of the fact that there must not be a TP in the internal domain of any chain of which auxiliary *goan* is a member.

The VPR restrictions imposed by *goan* constructions discussed in this section lend support to the idea that the crucial property that distinguishes VPR-verbs from non-VPR-verbs is their ability to select TPs (or, more precisely, to allow TPs in their internal domain) — the statement in (27).

6. Verb Projection Raising in causative constructions

Before broadening the domain of investigation to include Romance clitic (non-)climbing constructions, I would like to mention briefly here the fact that the minimalist VO analysis of VPR constructions yields a straightforward account of the fact that in causative VPR constructions the 'causee' may never be included in the VPR-cluster embedded under the causative verb. The West Flemish example in (36) (from Rutten 1991:51) and the Swiss German paradigm in (37) (from Haegeman & Van Riemsdijk 1986:432) show this:[11]

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10 I emphasise that the hierarchical ordering of the four verbs in this example must be as indicated; in particular, it cannot be the case that *een* is generated in the complement of *willen*, for on such an analysis *een* would govern V4 (*kuopen*), which would then have to surface in its participial form (*gekocht*, clearly distinct from *kuopen*). That *willen*, which on the proper analysis of (33) is the head of the complement of *een*, surfaces in its infinitival form is due to the famous (or infamous?) IPP effect (*infinitivus pro participio*).

11 The Old English example in (i) might seem to undermine attempts at providing a universal account for the ill-formedness of the parallel West Flemish and Swiss German sentences. I emphasise, however, that (i) is from *Beowulf*, a poetic text, and that the particular word order exemplified by it may well be *metris causa*.

(i)   to þæs þe he on ræste geseah guð werigne Grendel licgan   (*Beowulf* 1584)
         when he in rest saw war weary Grendel lie
         'when he saw the war-weary Grendel lie resting'

(36)   *da Jan deeg Valère nen boek vu zen wuf kuopen
       that Jan made Valère a book for his wife buy

(37) a.   das er sini chind mediziin wil laa studiere   (Züritüütsch)
         that he his child medicine wants let study

   b.   das er sini chind wil mediziin laa studiere

   c.   das er sini chind wil laa mediziin studiere

   d.   das er wil sini chind mediziin laa studiere

   e.   das er wil sini chind laa mediziin studiere

   f.   *das er wil laa sini chind mediziin studiere

The fact that (36) and (37f) are ungrammatical is easy to understand in the light of the (simplified, TP-less) structure of these examples, given — for the particular case of (37f) — in (38), in conjunction with the minimalist assumptions in (39a,b):

(38)   *er$_i$ [$_{VPi}$ wil [$_{VP2}$ t_i laa [$_{AgrO1P}$ sini chind$_j$ AgrO1 [$_{AgrO2P}$ mediziin$_k$ AgrO2 [$_{VP3}$ t_j studiere t_k]]]]]

(39) a.   Structural objective Case features are checked under Spec–Head agreement with AgrO-heads

   b.   AgrO-heads do not inherently possess structural objective Case features; verbs equipped with Case features supply AgrO-heads with such features by moving to AgrO

It will now be immediately evident why the structure in (38) is ill-formed — the complement of *laa* 'let' contains *two* AgrOPs with NPs in their specifier positions which must get their Case features checked, while there is only *one* (mono-transitive) verb in the relevant part of the structure that can supply the AgrO-nodes with a Case feature. The deviant VPR cases in (36) and (37f) hence violate (the minimalist version of) the Case Filter.

7. The link with Romance clitic (non-)climbing

In this section, I would like to draw attention to an interesting parallel between Verb (Projection) Raising and clitic (non-)climbing in Romance. What I shall focus on here are so-called 'auxiliary switch' phenomena. (Haegeman 1994 notes the same parallel between V(P)R and clitic (non-) climbing.)

   Burzio (1986) has noted that in Italian 'restructuring' constructions involving modals such as *volere* 'want', the auxiliary of the perfect can be selected either by the modal itself (which normally selects *avere* 'have') or by the verb embedded under the modal (which, if it is an ergative verb, commonly selects *essere* 'be'):

(40) a.   Gianni *ha* voluto venire
         Gianni has wanted come

   b.   Gianni *è* voluto venire
         Gianni is wanted come

In constructions featuring the locative clitic *ci*, the position of the clitic turns out to influence auxiliary selection. Thus, as Burzio notes, (41a), without clitic climbing, must feature *avere*, while (41b), with clitic climbing, can only feature *essere*:

(41) a.   Gianni *ha/*è* voluto venir*ci*
         Gianni has wanted come-here

   b.   Gianni *ci* *è/*ha* voluto venire
         Gianni here is wanted come

West Flemish and even varieties of standard Dutch also have 'aux switch' phenomena in modal constructions. The Dutch examples in (42) are fully parallel to the Italian examples in (40):

(42) a. Jan *heeft* kunnen komen
        Jan has can come
     b. Jan *is* kunnen komen
        Jan is can come

Interestingly, now, West Flemish Verb Raising and Verb Projection Raising constructions pattern almost as neatly with respect to auxiliary switch as do the Italian clitic (non-)climbing cases in (41). Haegeman (1994) notes the facts in (43):[12]

(43) a. da Valère nie no t schule *eet/is* willen goan
        that Valere not to school has/is want go
     b. da Valère nie *eet/*is* willen no t schule goan
     c. da Valère nie *eet/*is* no t schule willen goan
(44)   da Valère nie nor us willen kommen *is/eet*
        that Valère not to house want come is/has

What (43)/(44) show is that whenever there is Verb Projection Raising, 'aux switch' (or aux selection by the verb embedded under the modal; i.e. *be* selection) is strictly impossible. This suggests, as seems likely anyway, that the VPR construction patterns with the Italian non-climbing construction illustrated in (41a). West Flemish differs slightly from Italian in that it displays optionality of aux selection in the Verb Raising construction. In Italian clitic climbing constructions of the type in (41b), *have* selection is not possible, but in the VR examples in (43a) and (44) it is.

The parallel between West Flemish V(P)R and Italian clitic (non-)climbing is striking, and calls for an explanation. In the above I have argued that in VPR constructions the modal takes a TP complement while in VR constructions the modal's complement is no larger than VP. Clitic climbing, a phenomenon that appears optional on the surface, arguably is not a structurally optional process (cf. also Rooryck 1993). Rather, it is obligatory whenever it is allowed, and impossible otherwise. It is plausible to assume that clitic climbing is obligatory if the complement of the modal does not contain a functional head to which the clitic might attach (given Kayne's 1991 analysis of clitic placement). Whenever the modal takes a 'bare' VP complement, then, the clitic must climb into the matrix. The parallel between VR and clitic climbing is hence that in both construction types, the modal takes a VP complement. In non-climbing constructions, on the other hand, the modal will select a functional projection (TP if what I argued with respect to VPR is correct), and the clitic will stay downstairs. VPR and clitic non-climbing constructions are thus similar in that they both feature a functional projection (TP) in the modal's complement.

With respect to the analysis of 'aux switch', I can now generalise — in the light of the analysis of VR and clitic climbing constructions — that 'aux switch' is possible (West Flemish) or even obligatory (Italian) in modal constructions in which the projections of the modal and the ergative verb embedded under it are immediately contiguous; in other words, whenever the modal and the motional verb form what I have called (following Broekhuis 1993b) a 'lexical chain'. We have seen before (cf. the structure in (23), and Den Dikken 1994a) that in such cases, properties of the lower verb are visible on the projection of the higher verb. It is then not particularly surprising to find that precisely in this structural configuration, the lower verb can determine the choice of the auxiliary in perfective constructions. Although clearly a fuller analysis of 'aux switch' remains to be executed, the account sketched here seems promising.

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12 In (43a) there is a preference for *eet*; in (44) *is* is preferred (Haegeman, p.c.). I do not at this point have anything to say about this variation; I leave it for further research.

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The link with Romance clitic (non-)climbing constructions is interesting also because the facts of Romance supply empirical evidence for my earlier conclusion that in VPR/non-climbing constructions, the complement of the modal verb is a TP, while in VR/climbing constructions the modal verb takes a bare VP complement. As Napoli (1981), Rosen (1990) and Rooryck (1993), among others, have noted, in clitic non-climbing constructions the modal and the embedded verb can each independently be modified by temporal adverbs; in the corresponding clitic climbing constructions, however, such double temporal modification is impossible. The contrast in pairs like (45) is expected on the present assumptions, given that (45a), which is analysed along the lines of West Flemish VPR constructions, contains *two* TPs (one in the matrix inflectional domain and one in the complement of *vorrei* 'want-ed'), while there is only one TP in (45b), *vorrei* taking a bare VP complement in this clitic climbing construction (whose analysis runs parallel to that of West Germanic VR).[13] Evidence of this sort is welcome since it shows that the presence or absence of a TP in the modal's complement, which was motivated on structural grounds in the above, also has a direct semantic correlate; it thus further strengthens the analysis of V(P)R and clitic (non-)climbing presented here.

(45) a. Oggi, vorrei finir*lo* domani
          today (I) wanted finish-it tomorrow

   b. [?]Oggi, *lo* vorrei finire domani

8. Concluding remarks

In this paper I have presented the outlines of a minimalist analysis of Verb (Projection) Raising constructions built on a VO structure (cf. Kayne 1993). I have shown that such an analysis of V(P)R is empirically superior to the traditional OV approach in several respects (scopal properties, restrictions on VPR in motional *goan* and causative constructions), focusing mainly on the facts of West Flemish. The ease with which the analysis of V(P)R was shown to carry over to the Italian clitic (non-)climbing construction and manages to capture the 'aux switch' parallel between the two data sets suggests that the present analysis of V(P)R is presumably on the right track.

One interesting feature of the analysis developed here that seems worth drawing some attention to is that it relies crucially on Chomsky's (1993) theory of locality (in terms of the notion of equidistance). Ever since its inception, this theory has been under attack from scholars either wishing to abandon it entirely (cf. e.g. Zwart 1993) or proposing substantial changes to it (cf. most recently Ferguson & Groat 1994). The success that it has, though, in the analysis of V(P)R, and also in the domain of participial agreement, auxiliary selection (Den Dikken 1994a) and the distribution of the copula (Den Dikken 1994b), suggests that Chomsky's (1993) original minimalist locality theory may not be far off the mark after all.[14]

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13 The facts of temporal adverbial modification in West Germanic are less straightforward. That in Haegeman's (1992:116) (i) with *morgen* 'tomorrow' in the V-cluster the adverb can only modify *kommen* is expected under our analysis. But the ambiguity of the VR alternative between a reading in which *morgen* modifies *kommen* and one in which *morgen* is a matrix temporal adverb seems problematic — there appears to be no TP under *wilt* for *morgen* to modify. Similarly, the acceptability of (iia) (with the object outside the verb cluster) is surprising when viewed from an Italian perspective (cf. (45b)). I suspect that there is a parallel here with the optionality of 'aux switch' in VR constructions (cf. (43a), (44)) vs. the obligatoriness of *essere* selection in (41b). I hypothesise that constructions like (iia) are potentially structurally ambiguous between a structure in which objective Case-feature checking takes place outside the *willen*'s projection ('high AgrO') and one in which AgrOP (plus a concomitant TP) is generated in the modal's complement; in the latter structure, the surface VR pattern then arises through *scrambling* of the object (cf. the derivation of (17b) sketched in (26), which also crucially invokes scrambling).

(i)   da-se (*morgen*) wilt (*morgen*) kommen 'that-she (tomorrow) wants (tomorrow) come'
(ii)   a.   *vandoage* zou-ze eur kleed willen *oensdag* kuopen, mo morgen keut et andeers zyn   (Haegeman, p.c.)
            today would-she her dress want Wednesday buy but tomorrow can it different be
       b.   *vandoage* zou-ze willen eur kleed *oensdag* kuopen, mo morgen keut et andeers zyn

14 One aspect of the standard minimalist locality theory that I do think should be abandoned is the strict correlation between the overtness of NP-movement to SpecFP and the overtness of head-movement to F; cf. (22a), above.

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