Verb Clusters in Continental West Germanic Dialects

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1.   Introduction

The Continental West Germanic Languages include the standard varieties of Dutch, Frisian, and High German, as well as a large number of non-standard varieties, the more familiar of which are the dialects spoken in Belgium and the South of the Netherlands (Flemish, Brabantish, Limburgian), Northern Germany (Low German), the Rhine Valley (Luxemburgish), South-Eastern Germany and Austria (e.g. Bavarian), and Switzerland (Swiss German). In this paper, both the standard and the non-standard varieties will be referred to as dialects.

All these dialects differ from English in having the finite verb occupy the position after the first constituent in main clauses (a property the Continental West Germanic dialects share with the North Germanic dialects), and differ from both English and North Germanic in having the verb follow its noun phrase complement in embedded clauses and infinitival constructions. The latter property is illustrated in (1) for Dutch:

(1)   a.   (Ik wil) dat hij het boek leest
                I want that he the book reads
                'I want him to read the book.'
        b.   *(Ik wil) dat hij leest het boek
        c.   (Hij wil) het boek lezen
                He wants the book read
                'He wants to read the book.'
        d.   *(Hij wil) lezen het boek

On the basis of the word order facts in (1), the Continental West Germanic languages have been classified as OV-languages in the tradition of generative syntax (Bach 1962, Koster 1975). The word order in (1a) and (1c) was considered to reflect the deep structure ordering of the meaningful elements, the SVO order of main clauses being derived by movement of the finite verb to the second position in the sentence (see also Den Besten 1977). This analysis presupposes a phrase structural split dividing the Germanic languages in English and North Germanic on one side, and Continental West Germanic on the other. The split was related to the position of the head in the phrase: North Germanic and English would have the structure in (2), Continental West Germanic the one in (3):

(2)   XP

            specifier   X'

                        X°   complement

(3)   XP

            specifier   X'

                complement   X°

Recently, however, it has been argued that phrases in all Germanic languages, including Continental West Germanic, should be construed as in (2) (Kayne 1994, Zwart 1994). This presupposes that the word order in (1a) and (1c) does not immediately reflect the deep structure

ordering of the meaningful elements. Rather, (1a) and (1c) are derived by movement of the object noun phrase to the left, as demonstrated by Vanden Wyngaerd (1989). This does not affect the explanation for the SVO word order in main clauses, which is derived from the embedded clause word order by the verb movement identified by Koster (1975) and Den Besten (1977).

Immediate evidence for the object noun phrase movement to the left is presented by the phenomenon that the object noun phrase and the verb in OV-constructions need not be adjacent:

(4)   a.   (Ik wil) dat Jan het boek snel leest
                    I want that John the book quickly reads
                    'I want John to read the book quickly.'
     b.   (Ik wil) het boek snel lezen
                    I want the book quickly read
                    'I want to read the book quickly.'

The phenomenon in (4), often referred to as *scrambling* or *object shift*, is present in all Continental West Germanic dialects. Assuming that the object noun phrase must be generated as a sister of the verb, the OV-order in (4) presents no indication of the deep structure ordering of the verb phrase. Neither, then, does the OV-order in (1a) and (1b).

If the possibility of noun phrase movement makes the word order facts in (1) irrelevant for the question whether phrases in Continental West Germanic adhere to the structure in (2) or to the one in (3), the only way to study this question is by looking at other instances of complementation to the verb.

There are two cases to consider here. One case is presented by finite complement clauses. These invariably follow the verb, also in embedded clauses and infinitival constructions:

(5)   a.   (Hij denkt) dat ik wil dat hij het boek leest
                    He thinks that I want that he the book reads
                    'He thinks that I want him to read the book.'
     b.   *(Hij denkt) dat ik dat hij het boek leest wil
     a.   (Je moet) willen dat hij het boek leest
                    You must want that he the book reads
                    'You've got to want him to read the book.'
     b.   *(Je moet) dat hij het boek leest willen

In Zwart (1994), it is argued that the word order in (5a) and (5c) does reflect the basic ordering of the meaningful elements in the Dutch VP. This is because the factor triggering noun phrase movement in (1) and (4), presumably Case assignment, has no effect on clauses (which are not assigned Case). This deviates from the traditional analysis of (5), in which the clause is assumed to move to the right, by a process called *extraposition* (Reuland 1981). Extraposition, however, has a number of curious properties, leading Kayne (1994) to conclude that this movement process actually does not exist.

In this paper, we will discuss the remaining type of verbal complementation to be studied in connection with the position of the V in the verb phrase in Continental West Germanic: complementation by a verbal or infinitival constituent. This type of complementation typically gives rise to the construction of *verbal clusters* in Continental West Germanic (cf. Evers 1975). The order of the verbs in the verbal cluster shows a bewildering variation across Continental West Germanic dialects. It will be argued that this variation can best be analyzed by assuming that all phrases involved are structured as in (2).

Having established this, the paper explores the possibilities of participle placement in Continental West Germanic, based on the analysis of auxiliary constructions as possessive constructions proposed in Kayne (1993).

2.   Verb Clusters in Continental West Germanic

The Continental West Germanic dialects show a large variety of verb clusters, especially in embedded clauses, where the verb movement putting the finite verb in the second position does not apply. The most elementary cases are those in which an auxiliary verb has a past participle

in its complement domain, or when a modal, causative, or perception verb has an infinitive in its complement domain. In these situations, clusters are created that consist of two verbs only. More complex clusters arise by iteration of the processes that give rise to these simple clusters. (The infinitives in the complement domain of raising and control verbs, generally marked by a prefix cognate of English *to*, do not appear to give rise to cluster formation, and will be kept out of the discussion.)

Examples of simple clusters are given in (6)-(8), from Standard Dutch. The organization of the clusters is represented numerically on the extreme right, where the verb originating in the complement domain of the other verb gets the higher number:

(6)	a.	(Ik denk) dat Jan het boek heeft gelezen	1-2
		I think that John the book has read	
		'I think that John has read the book.'	
	b.	(Ik denk) dat Jan het boek gelezen heeft	2-1
(7)	a.	(Ik denk) dat Jan het boek kan lezen	1-2
		I think that John the book can read	
		'I think that John is capable of reading the book.'	
	b.	(Ik denk) dat Jan het boek lezen kan	2-1
(8)	a.	(Ik denk) dat ik Jan het boek laat/zie lezen	1-2
		I think that I John the book let/see read	
		'I think that I'm letting/seeing John read the book.'	
	b.	(Ik denk) dat ik Jan het boek lezen laat/zie	2-1

The *1-2* order in (6a) is prominent in written Dutch, whereas the *2-1* order in (6b) is prominent in spoken Dutch (Stroop 1970). In (7) and (8), the *1-2* order is slightly favored in both written and spoken Dutch, but the *2-1* order is not impossible.

Standard Dutch is presumably a composite of several systems present in the various dialects of Dutch (Stroop 1970). The freedom of word order in the verb clusters in (6)-(8) is generally absent from the dialects. Nevertheless, both the *1-2* order and the *2-1* order are represented in the dialects, so that (6)-(8) is a proper representation of the word order possibilities in Continental West Germanic verb clusters at large.

Looking at the dialects of Dutch, it appears that in the Southern dialects, the participle has a tendency to precede the auxiliary, as in (6b) (Verhasselt 1961:153, but cf. Shepherd 1946:61 on the dialect of Maastricht, who gives examples of the *1-2* order only). This tendency is less strong in the dialects spoken in the Eastern part of the Netherlands (Stroop 1970:250), whereas the dialects spoken in the North appear to employ the *2-1* order exclusively. The latter is also true of Frisian, High German, and the dialects of German, as far as I have been able to ascertain (Bruch 1973:93 mentions some Luxemburgish vestiges of the *1-2* order, which was a possibility of Middle High German).

The *2-1* order in (7)-(8), where the finite verb has an infinitive in its complement domain, is used exclusively in High German, Frisian, and the dialects spoken in the North of the Netherlands. However, many German dialects show the *1-2* order in this case (Bruch 1973:94 on Luxemburgish, Baur 1988:157 on Swiss German), which is also used very prominently in the Dutch dialects spoken in Belgium, Limburg, and the dialects spoken in the West and the South of the Netherlands. In the East of the Netherlands, a mixed situation seems to exist (Stroop 1970:254).

In more complex verb clusters, tendencies tend to become rule. Thus, in Standard Dutch verb clusters, the general word order becomes *1-2-3* (see (9)), while in High German and Frisian the general word order becomes *3-2-1* (see Frisian (10), from Tiersma 1985:139):

(9)	a.	(Ik denk) dat Jan het boek moet kunnen lezen	1-2-3
		I think that John the book must can read	
		'I think John must be capable of reading the book.'	
	b.	*(Ik denk) dat Jan het boek lezen kunnen moet	3-2-1
(10)	a.	..wêrom 't ik de hiele dei sitten bliuwe moatten ha	4-3-2-1
		why that I the whole day sit stay must(participle) have(finite)	
		'..why I have had to remain sitting all day.'	

b.   *..wêrom 't ik de hiele dei ha moatten bliuwe sitten   1-2-3-4

But many exceptions exist.

In Standard Dutch, for instance, when the second verb is an auxiliary, the participle in its complement may show up in three positions:

(11)   a.   (Ik denk) dat Jan het boek moet hebben gelezen   1-2-3
              I think that John the book must have read
              'I think John must have read the book.'
        b.   (Ik denk) dat Jan het boek moet gelezen hebben   1-3-2
        c.   (Ik denk) dat Jan het boek gelezen moet hebben   3-1-2

The general tendency is confirmed, however, in that the order of the modal and the auxiliary in the complement domain of the modal is fixed:

(11)   d.   ??(Ik denk) dat Jan het boek gelezen hebben moet   3-2-1
        e.   *(Ik denk) dat Jan het boek hebben gelezen moet   2-3-1
        f.   *(Ik denk) dat Jan het boek hebben moet gelezen   2-1-3

In Frisian, only the *3-2-1* order is allowed in this case, whereas High German allows both the *3-2-1* order and the *1-3-2* order.

In clusters of three verbs, the first of which is an auxiliary, the verb in its immediate complement domain often takes the shape of an infinitive, instead of the expected participial shape. This phenomenon, referred to as the *infinitivus pro participio* or *IPP*-phenomenon is present in all and only those dialects of Continental West Germanic in which the auxiliary precedes its complement in the verbal cluster (Hoekstra 1994). (12a) is from Standard Dutch, (12b) from High German:

(12)   a.   (Ik denk) dat Jan het boek heeft kunnen/*gekund lezen   1-2-3
              I think that John the book has can read
              'I think John could have read the book.'
        b.   (Ich glaube) daß Johann das Buch hat lesen können/*gekonnt   1-3-2
              I think that John the book has read can

(Notice that the modal is in the complement of the auxiliary, in spite of what the English translation suggests.) German (12b) again deviates from the expected *1-3-2* pattern, the *1-2* order setting up the context for the IPP-effect. In the *3-2-1* order, no IPP-effect occurs (Van Dam 1972:146):

(13)   (Ich glaube) daß ich Johann das Buch lesen gesehen/*sehen
              habe   3-2-1
              I think that I John the book read seen have
              'I think I saw John read the book.'

If the third verb in a cluster is in fact the combination of an auxiliary and a participle, the *1-2-3* dialects (like Standard Dutch) show a cluster consisting of one participle, two infinitives, and the matrix auxiliary verb (see (14a), where the placement of the participle is in fact as liberal as in (11)). Certain *3-2-1* dialects, on the other hand, show a cluster containing two participles and one infinitive next to the matrix auxiliary verb (see (14b), from Stellingwerfs, (Bloemhoff 1979:37, cf. Den Dikken and Hoekstra 1994)). This is because the IPP-effect is absent in strict *3-2-1* dialects:

(14)   a.   (Ik dacht) dat Jan het boek gelezen had kunnen hebben   4-1-2-3
              I though that John the book read had can have
              'I thought John could have read the book.'
        b.   ..omdat zi'j et wel es daon hebben kund had   4-3-2-1
              because she it PRT PRT done have could(participle) had
              '..because she may very well have done it'

Other double participle constructions do not seem to involve two auxiliary verbs. The following are examples from Dutch (15a), High German (15b) and Swiss German (15c):

(15)   a.   (Ik wist niet) dat Jan ontslagen was (?geworden)   3-1-2
                    I know not that John fired was become(participle)
                    'I did not know John had been fired.'
    b.   Grad wo t abgfaare gsy bisch...   3-2-1
                    just when you taken-off been are
                    'Just after you had left..'
    c.   (Ich möchte wissen) warum das Buch nicht gelesen worden ist   3-2-1
                    I would-like know why the book not read become(participle) is
                    'I would like to know why the book has not been read.'

These constructions are curious, in that in all dialects, no matter the preferred word order in the verbal cluster, the most deeply embedded participle has to precede the hierarchically higher participle. Thus, whereas the placement of the participle is particularly liberal in Dutch, (16) is completely ungrammatical (cf. (15a)):

(16)   (Ik wist niet) dat Jan was (*geworden) ontslagen   1-2-3
                I knew not that John was become(participle) fired
                'I didn't know John had been fired.'

A final descriptive generalisation about verb clusters in Continental West Germanic dialects is the following (due to Zwart 1994). Verb clusters in a number of dialects may be broken up by material properly belonging to the most deeply embedded verb in the cluster. Such material can be a complement of the verb, a particle belonging to the verb, a secundary predicate associated with the verb, an adverb modifying the verb, a stranded preposition belonging to a complement or adjunct PP associated with the verb, etc. (see Vanacker 1970 for an overview of the phenomena in Flemish dialects). The phenomenon, called *Verb Projection Raising* in the generative literature, is illustrated in (17a), from East Flemish (Vanacker 1970:145; *der* is extracted from the PP headed by *voor*), and (17b), from Swiss German (Baur 1988:157; the example also shows the IPP-effect):

(17)   a.   We zullen der moeten voor zorgen   1..2-3
                    we will there must for care
                    'We will have to take care of that.'
    b.   (I bi stolz,) das i ha chöne über de see schwüme   1-2-3
                    I an proud that I have can across the lake swim
                    'I'm proud that I have been able to swim across the lake.'

The generalization regarding Verb Projection Raising is that the material breaking up the cluster must be situated to the left of the verb which the material belongs to (in the sense just described). This implies that the phenomenon is absent from those languages that keep to a strict *3-2-1* order in the verbal cluster. Thus, it does not occur in Frisian and in the Northern Dutch dialects (though it does in West Frisian, which behaves more like High German in this respect, cf. Hoekstra 1994), and it shows up in High German only in the *1-3-2* cases (again, the auxiliary is hierarchically superior to the modal, contrary to what the English translation suggests):

(18)   (Ich bin der Meinung) daß er das Buch hätte genau durchsehen sollen   1-3-2
                I am of-the opinion that he the book had exactly through-look shall
                'I feel that he should have looked the book through carefully.'

(There is in fact a phenomenon in West Flemish, which contradicts the generalization presented here. This phenomenon shows a *2-3-1* ordering, where *1* is the auxiliary and *2* an infinitive instead of the expected participle. I will return to these facts in section 5.)

        The Verb Projection Raising phenomenon in (17) suggests that, properly speaking, the 'ascending' orders (such as *1-2, 1-2-3, 1-3-2*, etc.) do not present clusters, since there is a way for independent material to intervene between the members of the string of verbs. If so, the term

'cluster' in this connection should be understood in a pretheoretical sense, as referring to a string of verbs, rather than to an adjunction structure of some sort.

Though many more cases exist, this may suffice as a general survey of the properties of verb clusters in Continental West Germanic.

3.   Analysis of the verb clusters from an OV point of view

Let us now examine how the traditional analysis of Continental West Germanic has approached the problem of how to derive the various word orders in the verb clusters. Recall that this analysis starts from the hypothesis that the verb phrase in Continental West Germanic is structured as in (3) (in contradistinction to the structure in (2), employed in English and North Germanic).

Assuming all the verbs to occupy their basic positions, one would expect invariant 'descending' orders (*3-2-1*, *2-1*, etc.). As we have seen, however, few Continental West Germanic dialects employ 'descending' clusters uniquely. Frisian and the dialects spoken in the North of the Netherlands appear to be the most rigid varieties in this respect. All other dialects use either mixed orders (like the High German *1-3-2* order, or some of the orders found in Dutch (11)), or strictly ascending orders (like the Dutch construction in (9a), or actually use both ascending and descending orders (like Dutch in (6) and Luxemburgish, which has the *2-1* order with auxiliary-participle constructions and the *1-2* order with modal-infinitive constructions). To account for this bewildering variation, then, some movement processes have to be assumed.

In Evers' (1975) classic analysis, verb custers are created by moving embedded verbs to the right and adjoining them to the embedding verb. The adjunction can take place to the left and to the right of the embedding verb. Adjunction to the right yields the Dutch order in (6a), and adjunction to the left yields the High German order and the order of Dutch (6b).

As argued in Zwart (1994), it is impossible in this approach to keep the direction of adjunction constant even within a single language. That is, the variation in (6a) and (6b) must be expressed in terms of variation in the direction of adjunction. Similarly, the *1-3-2* order of High German (12b) must be derived by adjoining the most deeply embedded verb (*3*) to the left of the immediate higher verb (*2*), followed by subsequent adjunction of the cluster *3-2* to the right of the matrix verb (*1*).

In addition to the variation of the direction of adjunction, the analysis has to allow for variation of the phrase structural status of the category which is adjoined. This addition is needed to account for the Verb Projection Raising facts (see (17)). Following Den Besten and Edmondson (1983), it has been assumed that these phenomena are the result of movement of (part of) the embedded verb phrase to the right. This movement is followed by adjunction of the raised verb projection, either to the right of the higher verb, or to the right of some projection of the higher verb. The exact nature of this operation has been the subject of much discussion, which I will not go into here (see Rutten 1991 for a survey). (The fact, however, that Verb Projection Raising occurs both in *1-2-3* clusters, as in (17), and in *1-3-2* clusters, as in (18), suggests that the direction of adjunction in Verb Projection Raising is also subject to variation. In particular, the *1-ADV+3-2* order in (18) can only be derived by adjoining the *ADV+3* phrase to the left of the higher verb *2*, followed by adjunction of the complex head *ADV+3+2* to the right of the matrix verb *1*.)

This analysis is unsatisfactory for the following reasons:

a)   There is no consistent direction of adjunction, neither across Continental West Germanic dialects, nor even within particular Continental West Germanic dialects
b)   There is no fixed phrase structure level of the category adjoined
c)   It is not clear what triggers the various movements, in the sense that there is no understanding how particular asymmetries are to be explained (for instance the asymmetry between infinitives and participles, the former adjoining to the left and the latter to the right in a number of dialects (e.g. Luxemburgish))
d)   The parametrization makes no reference to the *timing* of the movements (i.e. either in overt syntax or in covert syntax), which is generally considered to be a major source of parametric variation (see most recently Chomsky 1993)
e)   It is unclear why in the Germanic SOV languages multi verb constructions show such a variety of word orders within the cluster, whereas in the Germanic SVO languages multi verb constructions invariably show strictly 'ascending' orders

f)   It is unclear why certain phenomena (the IPP effect, Verb Projection Raising) are sensitive to the surface order of the members of the verb cluster

g)   The analysis relies on a phrase structural split among the Germanic languages for which there is no independent empirical basis (see section 1).

In the following, we will approach the questions of word order in the Continental West Germanic verb cluster from the perspective of Kayne (1994) and Zwart (1994), according to which verb phrases in all Germanic languages have the structure in (2).

4.   Analysis of the verb clusters from a VO point of view

If the verb phrase in Continental West Germanic is structured as in (2), embedded verbs are generated in a position to the right of embedding verbs. As before, it is assumed that the noun phrase complement of a verb is moved to the left. In cases of multi verb constructions, this implies that the complement of the most deeply embedded verb will appear to the left of the verb cluster:

(19)   a.   ..dat Jan heeft gelezen [het boek]   (cf. 6a)
                that John has read the book
        b.   ..dat Jan [het boek]$_i$ heeft gelezen t$_i$

In Zwart (1994), it is argued that a similar process applies to embedded predicates:

(20)   a.   ..dat Jan heeft gelezen [het boek] [uit]
                that John has read the book uit
                '..that John finished the book'
        b.   ..dat Jan [het boek]$_i$ [uit]$_j$ heeft gelezen t$_i$ t$_j$

These elements, then, will not normally interfere with the verb clustering.
        There are certain restrictions on the movement of the object and the embedded predicate in (19) and (20). For example, the movements must give rise to crossing paths, rather than nesting paths:

(21)   *..dat Jan [uit]$_j$ [het boek]$_i$ heeft gelezen t$_i$ t$_j$ (cf. (20))

Assuming, with Chomsky (1993), that the relevant movements are directed to the specifier position of a functional projection, (21) can be excluded if the functional projections have to be ordered in some way.
        Such an ordering, however, in principle leaves open the possibility of generating the relevant functional projections in various positions. This is not excluded, as long as the result does not violate the restrictions on the ordering of the functional projections involved.
        More concretely, if the functional projection that hosts the object must precede the functional projection that hosts the embedded predicate, it is not excluded that the latter functional projection is generated somewhere between the auxiliary and the participle. This would yield the word order in (22):

(22)   ..dat Jan [het boek]$_i$ heeft [uit]$_j$ gelezen t$_i$ t$_j$

Although (22) is not fully grammatical in Standard Dutch, constructions like (22) are found in several Continental West Germanic dialects. (22), namely, instantiates the Verb Projection Raising phenomenon, illustrated in (17) (this approach to Verb Projection Raising is first found in Kaan 1992:111).
        Thus, it appears that, in the VO-approach, Verb Projection Raising can be described independently of the verb movement that gives rise to the formation of verb clusters. This eliminates one of the problems mentioned above in connection with the assumption that the VP in Continental West Germanic is organized as in (3) (i.e., with the head following its complement). Under this assumption, the Verb Projection Raising facts (cf. (17)) can only be derived by moving

(part of) the verb phrase to the right. Starting from the structure in (2), with the head preceding its complement, there is no need to allow for variation of the phrase structure level of the category moved. In other words, we can maintain that verb clustering involves verb movement only. This significantly reduces the range of variation that the system of grammar allows.

A further restriction on Verb Projection Raising is that the material breaking up the cluster (such as *uit* in (22)) cannot be placed to the right of the verb which it properly belongs to. Thus, in (22) *uit* 'out (i.e. finished)' is the predicate of a Small Clause *het boek uit* 'the book out', occurring in the complement of the verb *gelezen* 'read'. In this sense, *uit* belongs to *gelezen* (cf. Neeleman 1994, who analyzes the combination of *uit* and *gelezen* as a complex predicate). We know that *gelezen* may appear both to the right and to the left of the auxiliary *heeft* (cf. (6)). But when *gelezen* appears to the left of *heeft*, so must *uit*:

(23) a. ..dat Jan [het boek]$_i$ [uit]$_j$ gelezen$_k$ heeft t$_k$ t$_i$ t$_j$
          that John the book out read has
      b. *..dat Jan [het boek]$_i$ gelezen$_k$ heeft [uit]$_j$ t$_k$ t$_i$ t$_j$
      c. *..dat Jan [het boek]$_i$ gelezen$_k$ [uit]$_j$ heeft t$_k$ t$_i$ t$_j$

In Standard Dutch, (23b) and (23c) contrast sharply with the marginally acceptable (22). In Verb Projection Raising dialects like West Flemish and Swiss German, examples like (23b) and (23c) are never found.

Apparently, the intervening material in Verb Projection Raising constructions must be *construed* (in a pretheoretical sense) with the verb it belongs to. 'Construing with' is apparently sensitive to directionality, as is also suggested in Kayne (1994). Below, we will provide a more technical description of 'construing with' in Verb Projection Raising constructions.

So far, we have seen that the VO-approach makes it unnecessary to refer to the phrase structural status of the category moved (in the process of construing of verb clusters). It does not seem to be the case that there is more going on than object movement, predicate movement, and verb movement.

Let us next consider the question of the direction of adjunction. In the OV-approach, the variation in (6), reflecting the range of possibilities in two-verb clusters in Continental West Germanic, is analyzed as involving a choice between adjunction to the right and adjunction to the left. As can be seen, there is no way of keeping the direction of adjunction constant, even within a single language (e.g. Standard Dutch and High German).

As a first approximation, we could propose that the order in (6a) results from there being no movement at all, while the order in (6b) is the result of adjunction of the participle to the left of the auxiliary:

(24) a. .. *[het boek]$_j$* .. [$_{VP}$ *heeft* [$_{VP}$ *gelezen* t$_j$]]   (=(6a))
      b. .. *[het boek]$_j$* .. [$_{VP}$ *gelezen$_i$-heeft* [$_{VP}$ t$_i$ t$_j$]]   (=(6b))

In other words, the variation in (6) is the result of the absence vs. presence of a particular movement (or, in Chomsky's (1993) framework, of the timing of the movement of the participle, taking place before *Spell-Out* in (24b), and after *Spell-Out* in (24a)). Similarly, the variation in (7) and (8) could be taken to result from the absence vs. presence of raising and adjunction of the infinitive to the modal, perceptive, or causative verb.

This approach, which was taken in Zwart (1993), has the immediate advantage that no language or construction specific statements need to be made about the direction of adjunction. It is also in accordance with Kayne's (1994) observation that adjunction seems to always take place on the left.

A similar approach could not be as successful if we were to start from the OV-structure in (3). In principle, the *2-1* orders in (6a), (7a), and (8a) could be obtained by abstaining from verb movement (instead of raising of the embedded verb and adjoining it to the left of the embedding verb):

(25) a. *[het boek]$_j$* [$_{VP}$ [$_{VP}$ t$_j$ t$_i$] *heeft-gelezen$_i$*]   (=(6a))
      b. *[het boek]$_j$* [$_{VP}$ [$_{VP}$ t$_j$ *gelezen*] *heeft*]   (=(6b))

But this generates several problems. For one thing, the Verb Projection Raising order *heeft uit gelezen* must be derived by raising a (part of a) verb phrase, as discussed above. For another, it is unclear why the *2-1* cluster is impenetrable in all Continental West Germanic dialects. Finally, this would lead to problems if clusters with more than two verbs are taken into account.

Consider, for instance, the three-verb clusters in the sentences (11) from Standard Dutch. Allowed are the orders *1-2-3, 1-3-2,* and *3-1-2*. Very marginal is *3-2-1*, and unacceptable are *2-3-1* and *2-1-3*. From the VO-perspective, it looks like the basic *1-2* order is fixed (i.e. the auxiliary always follows the modal verb), while the *3* verb (the participle) can choose to not move at all, move part way, or move all the way:

(26)   a. $[_{VP}$ *moet* $[_{VP}$ *hebben* $[_{VP}$ *gelezen* $]]]$ (=(11a))
        b. $[_{VP}$ *moet* $[_{VP}$ *gelezen$_i$-hebben* $[_{VP}$ t_i $]]]$ (=(11b))
        c. $[_{VP}$ *gelezen$_i$-moet* $[_{VP}$ *hebben* $[_{VP}$ t_i $]]]$ (=(11c))

If necessary, the *3-2-1* order of (11d) can be derived by adjoining the complex *gelezen-hebben* in (26b) to the left of the matrix verb *moet*:

(26)   d. $[_{VP}$ *[gelezen-hebben]$_j$-moet* $[_{VP}$ t_j $[_{VP}$ t_i $]]]$ (=(11d))

Since *3-2-1* clusters appear in various Continental West Germanic dialects, such a derivation may have to be allowed. The remaining two orders, which are ungrammatical in Standard Dutch, are harder to derive. The only way to derive the *2-3-1* order in (11e) seems to be to move the verb phrase to the left:

(26)   e. $[_{VP}$ $[_{VP}$ *hebben* $[_{VP}$ *gelezen* $]]_j$ *moet* t_j $]$ (=(11e))

This movement clearly deviates from the ones considered up to now. (11e) appears to be excluded in Continental West Germanic, although the *2-3-1* order does occur in several dialects when the *3* verb is not an auxiliary but an infinitive (e.g. in West Flemish *zien gebeuren heeft* [see happen(infinitive) has] 'has seen happen'). The process by which (26e) is derived, then, cannot entirely be excluded, but it does not seem to apply in participle constructions. Finally, the *2-1-3* order can only be derived by moving the middle verb out to the left:

(26)   f. $[_{VP}$ *hebben$_j$-moet* $[_{VP}$ t_j $[_{VP}$ *gelezen* $]]]$ (=(11f))

The extremely sharp ungrammaticality of (11f), across all Continental West Germanic, as far as I have been able to check, is clearly reminiscent of the ungrammaticality of (23b) (where the embedded predicate appears to be left stranded). This suggests that for licensing purposes the participle is dependent on the auxiliary in the same way as the embedded predicate (or another element in the relevant complement domain) is on the verb selecting it. The generalization then seems to be that the participle must be licensed somewhere to the left of the auxiliary, which leaves the *1-2* order in (6a) and the *1-2-3* order in (11a) a very curious exception indeed. Nevertheless, the parallellism between (23b) and (11f) strongly suggests that this generalization is correct, and that some additional explanation is needed to account for the final position of the participle in (6a), (11a), and many other constructions across Continental West Germanic.

On the OV-approach, the general picture of the participle *3* moving gradually leftward (yielding the *1-2-3, 1-3-2,* and *3-1-2* orders of (11a-c)) is lost. Three entirely different derivations are needed to reach the three fully grammatical word orders in (11a-c). The *1-2-3* order is derived by adjoining the participle *3* to the right of the auxiliary *2*, followed by adjunction of the auxiliary-participle cluster to the right of the matrix verb *1* (27a). The *1-3-2* order is derived by adjoining the participle *3* to the *left* of the auxiliary *2*, followed again by adjunction of the participle-auxiliary cluster to the right of the modal verb *1* (27b). Finally, the *3-1-2* order is derived by leaving the participle *3* in its place, while moving the auxiliary *2* out to the right (27c):

(27)   a. $[_{VP}$ $[_{VP}$ $[_{VP}$ t_i $]$ t_j $]$ *moet-[hebben-gelezen$_i$]$_j$* $]$ (=(11a))
        b. $[_{VP}$ $[_{VP}$ $[_{VP}$ t_i $]$ t_j $]$ *moet-[gelezen$_i$-hebben]$_j$* $]$ (=(11b))
        c. $[_{VP}$ $[_{VP}$ $[_{VP}$ *gelezen* $]$ t_j $]$ *moet-hebben$_j$* $]$ (=(11c))

Again, it is unclear why the cluster in (27a) is penetrable in several Continental West Germanic dialects, as is illustrated in (28) (cf. (22)):

(28)   a.   ..dat Jan het boek moet hebben *uit* gelezen
                 that John the book must have out read
                 '..that John must have finished the book'
        b.   ..dat Jan het boek moet *uit* hebben gelezen

As (28b) shows, the penetration of the cluster cannot be the result of some complex *uit-gelezen* moving and adjoining to the auxiliary as a single participle. Such an analysis is generally not feasible in Verb Projection Raising constructions, since the material breaking up the cluster may very well be a complete phrase.

Returning to the question of how to derive the various orderings in (11) from an OV-point of view, the *3-2-1* ordering of (11d) is unproblematic. It can be derived by abstaining from movement entirely:

(27)   d.   [$_{VP}$ [$_{VP}$ [$_{VP}$ *gelezen*] *hebben*] *moet*]   (=(11d))

But of the remaining two orders, the first cannot be blocked without utter stipulation. Thus, the *2-3-1* order of (11e) could be derived by adjoining the participle *3* to the auxiliary *2*, as in (27a), and by abstaining from further movement (27e). It is entirely unclear what blocks this process (apart from the stipulation that once the movement process has started, it has to go all the way). The completely ungrammatical *2-1-3* order of (11f) is derivable by moving the participle *3* all the way to the right and adjoining it to the modal *1* (27f):

(27)   e.   [$_{VP}$ [$_{VP}$ [$_{VP}$ t$_i$] *hebben-gelezen$_i$*] *moet*]   (=(11e))
        f.   [$_{VP}$ [$_{VP}$ [$_{VP}$ t$_i$] *hebben*] *moet-gelezen$_i$*]   (=(11f))

This derivation can be blocked by some version of the Head Movement Constraint, which does not allow a head to move across a governor (Travis 1984). There is a way, however, of deriving (11f) while adhering to the Head Movement Constraint, namely by adjoining the auxiliary *2* to the left of the modal verb *1*, followed by adjunction of the participle *3* to the right of the auxiliary-modal complex. The definition of the Head Movement Constraint ensures that in this case, the trace of the auxiliary verb does not count as an intervening governor (see Baker 1988):

(27)   f'.   [$_{VP}$ [$_{VP}$ [$_{VP}$ t$_i$] t$_j$] *[hebben$_j$-moet]-gelezen$_i$*]   (=(11f))

Given the possibility of adjunction to the left (as needed in the derivation of (27b)), this derivation should in principle be allowed. Yet (11f) is hopelessly ungrammatical in all dialects of Continental West Germanic.

In conclusion, the various word orders discussed here can be derived in a simpler and more restrictive way if it is assumed that the verb phrase in Continental West Germanic is structured as in (2).

5.   Patterns of optional movement

The analysis of the Continental West Germanic verb clusters from a VO-point of view, as presented in section 4, has one unsatisfactory aspect. The phenomenon that in certain dialects both the auxiliary-participle order and the participle-auxiliary order are possible is described in terms of *optional* movement of the participle to the left. But the ungrammaticality of (11f) suggests that such optionality in fact does not exist (see the discussion around (26f)). (As Chomsky 1993 points out, optionality ought not to be part of a system of grammar. However, it cannot be excluded that the optionality in (6) in fact reflects a limited form of bilingualism among speakers of the relevant dialect - perhaps not accidentally a standard dialect. (11f), however, strongly suggests that there is *always* participle movement in Continental West Germanic.)
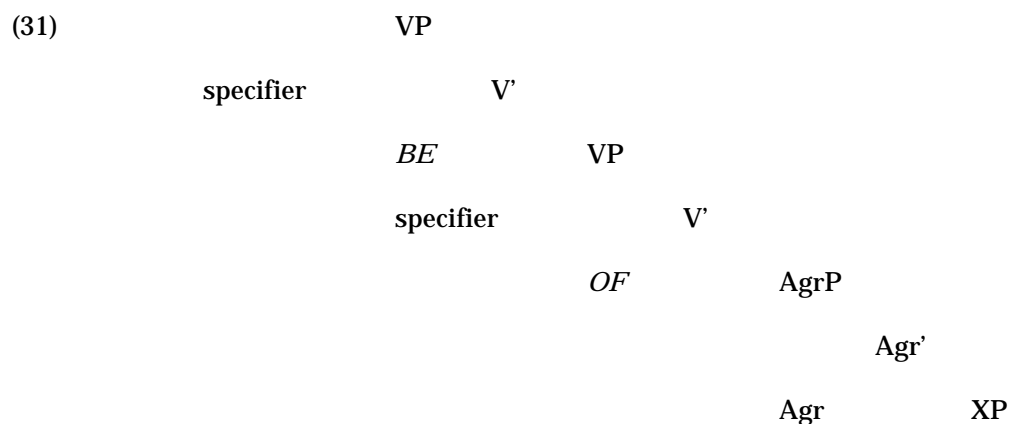
If participle movement is optional, movement of the auxiliary to the left of the modal should not interfere with the placement of the participle. Yet this is what happens, as the following paradigm shows:

(29)   a.   ..dat Jan kan komen
                   that John can come
        b.   ..dat Jan komen$_i$ kan t$_i$
(30)   a.   ..dat Jan het boek kan hebben gelezen
                   that John the book can have read
                   '..that John may have read the book'
        b.   *..dat Jan het boek hebben$_i$ kan t$_i$ gelezen

Hence, participle movement cannot be optional. The ungrammaticality of (30b) shows that the participle must always be licensed in close proximity to the auxiliary. The optionality underlying (6) must relate to the position the participle is moved to: either preceding or following the auxiliary. When the auxiliary moves, only the position preceding the auxiliary remains as a potential landing site for the participle.

       At this point, it becomes necessary to look into the structure of auxiliary-participle constructions in more detail. The use of a verb referring to possession to mark the past tense in the Indoeuropean languages is too striking to be overlooked (cf. Vendryes 1937). Kayne (1993) therefore proposes to analyze auxiliary-participle constructions as possessive constructions.

       Possessive verbs like *have* are often considered to be a composite of *be* and a functional element (mostly a preposition) (see e.g. Freeze 1992). Following Kayne (1993), I will assume that the auxiliary *have* should also be treated as a composite of two heads, which I will call *BE* and *OF*. Each of these heads projects a (verb) phrase, yielding two specifier positions. The complement of the lower head, *OF*, is a Small Clause-like structure, consisting of an Agreement Phrase (as in Kayne 1993) and a lexical projection in the complement of Agr (slightly deviating from Kayne 1993):

(31)   VP

                 specifier   V'

                        BE   VP

                    specifier   V'

                        OF   AgrP

                                 Agr'

                         Agr   XP

I assume that in possessive constructions, like (32a), the lexical projection *XP* in (31) is an NP, whereas in auxiliary-participle constructions, like (32b), *XP* equals VP. Finally, in constructions containing a secundary predicate, like (32c), *XP* is a Small Clause:

(32)   a.   ..dat Jan [een boek]$_i$ heeft t$_i$
                   that John a book has
                   '..that John has a book'
        b.   ..dat Jan [het boek]$_i$ heeft [$_{VP}$ gelezen t$_i$]
                   that John the book has read
                   '..that John has read the book'
        c.   ..dat Jan [het boek]$_i$ [uit]$_j$ heeft [$_{SC}$ t$_i$ t$_j$]
                   that John the book out has
                   '..that John has finished the book'

The movement of the object *het boek* in (32) (in fact, a Small Clause subject in (32c)) and of the predicate *uit* in (32c) take place under the conditions discussed in section 4. The landing site of these elements is generally located to the left of the *BE-OF* composite *have*. (We will return to Verb Projection Raising below.)

The representation in (32b) has the participle *gelezen* inside the VP embedded under *OF*. But, as we have seen, the participle must also move to the left. When we zoom in on the construction in (32b), we find that the structure must be something like (33):

(33)   *.. [het boek]$_i$* [$_{VP}$ -- *BE* [$_{VP}$ -- *OF* [$_{AgrP}$ [$_{VP}$ *gelezen* t$_i$]]]]

In (33), *OF* incorporates into *BE*, yielding *have*. *Have* being a composite, there are two specifier positions associated with *have*, indicated by the double hyphens in (33). I would like to propose now that the participle *gelezen* can be licensed in each of these two specifier positions. This yields either (34a) or (34b):

(34)   a.   *.. [het boek]$_i$* [$_{VP}$ -- *BE* [$_{VP}$ *gelezen$_j$ OF* [$_{AgrP}$ [$_{VP}$ t$_j$ t$_i$]]]]
       b.   *.. [het boek]$_i$* [$_{VP}$ *gelezen$_j$ BE* [$_{VP}$ -- *OF* [$_{AgrP}$ [$_{VP}$ t$_j$ t$_i$]]]]

Assuming now that *BE+OF* (=*have*) is spelled out in the position of *BE*, (34) immediately yields the two possible word orders in (6):

(6)   a.   ..dat Jan het boek heeft gelezen   (=(34a))
            that John the book has read
       b.   ..dat Jan het boek gelezen heeft   (=(34b))
            that John the book read has

(The optionality of moving the participle to either the specifier position of *OF* or the specifier position of *BE* can be derived from Chomsky's (1993:17) Equidistance Principle. As a result of the incorporation of *OF* into *BE*, both specifier positions are in the minimal domain of the composite *BE+OF*, hence, according to Chomsky, equidistant from any position lower in the tree.)

The variation among the Continental West Germanic languages with respect to the position of the participle can now be described in terms of which of the two specifier positions in (33) may be occupied by the participle.

This analysis differs from the one entertained in section 4, in that participle movement was described as adjunction to a head in section 4, and as movement to a specifier position in this section. There is actually evidence that the auxiliary licenses its complement (i.e., the participle) in a specifier position, rather than via head-adjunction. This evidence is based on a curious construction from West Flemish, discussed in Hoekstra (1994) and Den Dikken (1994). This construction shows the order *2-3-1*, where *1* is a form of the auxiliary *have* ((35a) from personal observation, (35b) quoted from Liliane Haegeman, p.c., in Den Dikken 1994:83):

(35)   a.   ..da Jan 't zien gebeuren eet   2-3-1
            that John it see happen has
            '..that John saw it happen'
       b.   ..da Valère zou willen dienen boek kuopen een   1-3-4-2
            that Valery should want that book buy have
            '..that Valery would have wanted to buy that book'

In (35a), the cluster of infinitives *zien-gebeuren* has apparently been moved to the left of the auxiliary *eet*. This could in principle be an instance of head movement. But (35b) shows that it is not. In (35b), the preposed cluster, *willen-kopen*, is broken up by the object *dienen book*, expressing the internal argument of the most deeply embedded verb. This, then, is an instance of the Verb Projection Raising phenomenon, suggesting that a licensing position for the direct object is created to the immediate left of the verb *kuopen*. This licensing position must be the specifier position of a functional projection, leading to the conclusion that the combination *dienen boek kuopen* is a phrase rather than a head. (It will go without demonstration here, that the construction in (35b)

does not have the properties of noun incorporation constructions.) Hence, *willen-dienen boek kopen* must be a phrase as well, moving around the auxiliary to what must be analyzed as a speecifier position. Generalizing this result, it must be the case that auxiliaries license the verbs in their complement in a specifier position.

(This might lead to the conclusion that what is moved in (34) is actually not the participle itself, but the VP containing the participle as a whole. This, however leads to a problem in cases where the participle has a clausal complement. Contrary to what one would expect under the scenario under consideration here, the clausal complement does not appear to the left of the auxiliary, as pointed out to me by Daniel Büring. I will not discuss this issue here, leaving the phrase structure status of the participle in (34) open.)

The observation that participles move to a specifier position is not easily accommodated under the assumption that the VP in Continental West Germanic is structured as in (3). Since specifiers do not appear to the right, participle-final orders can only be described as the result of head-adjunction under that approach. As a further disadvantage of the OV-approach, it should be mentioned that there is no way of relating the optionality of participle placement to the possessive structure of auxiliary constructions as argued for in Kayne (1993). To be more precise, movement to each of the two participle constructions would always yield a participle-auxiliary order, as (36) shows:

(36)   a. $[_{VP}$ -- $[_{VP}$ *gelezen$_i$* $[_{VP}$ t$_i$] *OF*] *BE*]
       b. $[_{VP}$ *gelezen$_i$* $[_{VP}$ -- $[_{VP}$ t$_i$] *OF*] *BE*]

This should count as a further argument against the analysis of the Continental West Germanic dialects as head final languages.

As the facts in (11a-c) show, the optionality in the placement of the participle is not exhausted by the two variants yielded by (34). In particular, the participle may appear at the far left of a multi-verb cluster, and at various positions in between if the cluster contains more than three verbs. These possibilities are illustrated in (37).

(37)   a.   ..dat Jan het boek gelezen moet hebben   (=(11c))
                 that John the book read must have
                 '..that John must have read the book.'
       b.   ?..dat Jan het boek moet gelezen kunnen hebben   1-4-2-3
                 that John the book must read can have
                 '..that John must have been able to read the book.'

The *1-2-3* and *1-3-2* orders of (11a-b), not repeated here, can now be described as the immediate result of the participle movement illustrated in (34). The participle occupies either the lower or the higher specifier position associated with the composite *have*. But this leaves the *3-1-2* order in (37a)/(11c) unaccounted for. The same can be said about the *3-2-1* order in (11d), marginal in Dutch, but grammatical in several Continental West Germanic dialects (High German, among others).

In a pretheoretic sense, we could say that the modal verb *moet* in (37a) 'takes over' the licensing of the participle from the auxiliary *hebben*. Similarly for *kunnen* in (37b). A first approximation therefore could be to assume that in (37) the participle is licensed in the specifier position associated with the modal verb.

This analysis cannot work if the modal verb itself needs the specifier position involved to license the verb in its immediate complement domain (i.e. *hebben* in (37)). However, it is not clear whether the infinitive in the complement domain of the modal is licensed by movement to a specifier position or by head-adjunction to the modal. Constructions like the ones in (35), showing that participles are licensed in a specifier position, are typically absent from Continental West Germanic dialects (as far as I have been able to ascertain).

(Evidence from Stellingwerfs and other dialects spoken in the Northeastern parts of the Netherlands supports the idea that movement of a phrase around a modal verb does not occur in Continental West Germanic, in contrast to movement of a phrase around an auxiliary. The construction in (14b) must be derived, ultimately, by moving a *4-3-2* cluster (*daon hebben kund*) around the auxiliary *1* (*had*). I assume that the *4-3-2* cluster originates from adjoining the infinitival auxiliary *3* (*hebben*) to the participial modal *2* (*kund*), forcing the participle *daon* to

move to the specifier position of the modal *2* along the lines to be described below. If so, the *4-3-2* cluster must move as a phrase to a specifier position associated with the matrix verb *had*. The pattern in (14b), however, is completely absent when the matrix verb is a modal, e.g. *zol* 'will', instead of an auxiliary, as Bloemhoff 1979:33 reports. In that case, either the number *2* participle *kund* becomes an infinitive *kunnen*, leading to an analysis of successive adjunction as in High German, or the order that surfaces is *1-4-3-2* (*zol daon hebben kund*; Bloemhoff 1979:37 note 1, based on observations from the Overijssel dialect just South of the Stellingwerf area). The latter construction differs from the one in (14b) only in that the *4-3-2* cluster *daon hebben kund* is not moved as a phrase across *zol*. This supports the view that modals trigger head movement, whereas auxiliaries trigger movement of a phrase.)

Moreover, on the basis of the pair in (38), one would expect to find the pair in (39) also, if the complement of the modal were to move as a phrase:

(38) a.   ..dat Jan het boek moet lezen
           that John the book must read
           '..that John must read the book'
      b.   ..dat Jan het boek lezen moet
(39) a.   ..dat Jan het boek moet hebben gelezen   (=(11a))
           that John the book must have read
           '..that John must have read the book'
      b.   *..dat Jan het boek [hebben gelezen] moet   (=(11e))

But the *2-3-1* order in (39b) is apparently only found where *1* is an auxiliary instead of a modal. This leads me to conclude that infinitives, if they move, adjoin to a head, instead of moving to a specifier position.

Following a suggestion by Eric Hoekstra, I will assume that a modal may 'take over' from an infinitival auxiliary (i.e. license the participle in its specifier position) on the basis of the licensing relation that exists between the modal and the infinitive. Even if the infinitive does not move to the modal overtly, as in (37), the licensing relation between the two verbs must be said to exist. In terms of Chomsky (1993), we may assume that the infinitive adjoins to the modal in the hidden component of syntax LF. In a more representational approach, as advocated by Groat and O'Neil (1994), we may assume that the infinitive has in fact adjoined to the modal in (37), leaving a copy in its original position behind. The language may then choose which of the copies of the infinitive to spell out:

(40)   [$_{VP}$ *gelezen$_i$ (hebben$_j$)-moet* [$_{VP}$ *(hebben$_j$)* [$_{VP}$ t$_i$]]]

Spelling out the higher copy yields the High German order *3-2-1*, spelling out the lower copy yields the Standard Dutch order *3-1-2*.

We may now assume that the auxiliary *hebben* transfers its capacity to license the participle in a specifier position to its sister in the adjunction configuration in (40). In this way, the modal can take over from the auxiliary. The optionality of this process (witnessed by the possibility of the various word orders in (11a-c)) remains unaccounted for under this approach.

This analysis of the word order possibilities in (37) carries over to the Dutch constructions with several infinitivals, where the participle is allowed to appear to the extreme left of the cluster:

(41)   ..dat Jan het boek gelezen zou moeten kunnen hebben   5-1-2-3-4
           that John the book read(participle) should must can have
           '..that John should have been able to read the book'

In the covert part of the structure underlying (41), *hebben* is adjoined to *kunnen*, the cluster *kunnen-hebben* is adjoined to *moeten*, and the cluster *kunnen-hebben-moeten* is adjoined to zou. The capacity to license the participle in a specifier position is transferred with each adjunction.

This analysis of patterns like (37) and (41) is supported if we consider cases where the higher copy of the adjoined infinitive (cf. (40)) is actually spelled out. In those cases, only the specifier position of the modal (as we have analyzed it) is available as a licensing position for the participle. In other words, the option of selecting the specifier positions associated with *hebben* itself disappears when *hebben* is spelled out in the adjoined position in (40). This can be seen from

the radical ungrammaticality, across all Continental West Germanic, of the *2-1-3* order in (11f) (analyzed in (42)):

(11)   f.   *..dat Jan het boek hebben moet gelezen   2-1-3
                that John the book have must read
(42)   a.   [$_{VP}$ *hebben$_j$-moet* [$_{VP}$ -- t$_j$ [$_{VP}$ *gelezen$_i$ (OF)* [$_{AgrP}$ t$_i$]]]]
       b.   [$_{VP}$ *hebben$_j$-moet* [$_{VP}$ *gelezen$_i$* t$_j$ [$_{VP}$ -- *(OF)* [$_{AgrP}$ t$_i$]]]]

The ungrammaticality of (11f) leads us to conclude that when the adjunction of the infinitive auxiliary to the modal verb is overt, the auxiliary can no longer license the participle itself, but has to transfer its capacity to license to its sister, the modal verb. (In other words, in (11a) and (11b), the covert adjunction of the auxiliary to the modal can be ignored, but the overt adjunction in (11f) can not.)

This analysis of the possible word orders in (11a-c) finds an obvious parallel in the analysis of Verb Projection Raising constructions. As was illustrated in (23), the material breaking up the verb cluster cannot be situated to the left of the verb which this material properly belongs to (see (43a)). It can however be situated further to the left than expected:

(43)   a.   ..dat Jan het boek (uit) gelezen (*uit) moet (*uit) hebben   3-1-2
                that John the book (out) read (out) must (out) have
                '..that John must have finished the book'
       b.   ..dat Jan het boek (uit) moet (uit) hebben (uit) gelezen   1-2-3
                that John the book (out) must (out) have (out) read
                '..that John must have finished the book'

Uit being a predicate in the complement domain of *gelezen*, the instructions to create a functional projection for licensing *uit* must derive from *gelezen*. Apparently, however, it is not necessary to create the relevant functional projection in the immediate vicinity of *gelezen* (see (43b)). This we can describe along the same lines as we described participle placement above (*mutatis mutandis*).

Two differences between the placement of 'Verb Projection Raising-material' (such as *uit* in (43)) and participles must be taken into account. First, a predicate like *uit* may have to be licensed in the specifier position of a functional head, rather than in the specifier position of a verb (see also Zwart 1994). This is because the specifier position of a verb is used for the licensing of embedded verbs, in particular participles. Secondly, it is unclear whether a participle, when it is moved to the specifier position of a hierarchically higher verb (whether *OF*, *BE*, or a modal verb) is still able to create the functional projection needed for licensing the predicate embedded in its complement domain.

I would like to explore the possibility that the participle, when moved to a licensing position, transfers the capacity to project a phrase for licensing the embedded predicate to the head with which the participle is in construction. In (43a), for example, this is *moet*, and in (43b), the *OF*-head (cf. (40)). The capacity to project a licensing phrase now resides with a verb in a head position. Now the parallel with the analysis of participle placement becomes apparent: in multiple verb constructions, the verbs adjoin to each other, transferring the capacity to project a phrase for the embedded predicate with each adjunction.

As before, the overt position of the verb in which the capacity to license originates (in this case, the participle) determines the range of licensing positions. In (43b), the licensing phrase for *uit* can be projected from each verbal position, based on the covert syntactic representation in which all infinitives are adjoined to each other. In (43a), the licensing phrase for *uit* can only be projected from the highest verbal position, because that is where the participle is overtly realized.

Thus, the distribution of intervening material in Verb Projection Raising constructions and the distribution of participles seem to be regulated in essentially identical ways. This insight is entirely due to the VO-approach to the syntax of the verb clusters in Continental West Germanic, which has made it possible to analyze participle placement as movement to a specifier position.

6.   Patterns in the Word Order Variation.

So far, we have been studying the range of possible word orders across Continental West Germanic. In this concluding section, I would like to concentrate on a particular area where Continental West Germanic dialects are spoken, to see whether there is a system in the actual patterns of word order that corresponds to a particular group of speakers or dialects.

The area under consideration is the territory of the Netherlands, and the data and generalizations are derived from Stroop (1970). I will limit myself to contructions involving a participle, an auxiliary, and zero or more modal verbs.   Stroop (1970:264) identifies three systems in the verb clusters used among the speakers of Netherlandic dialects. The relevant examples are given below (the auxiliary *worden* is comparable to *hebben* in relevant respects; in particular, I assume that *worden* is a composite of a directional and a stative head, as in the paraphrase 'come to be'):

(44)   System I
       a.   ..dat hij gehaald werd   2-1
             that he fetched became
             '..that he was fetched'
       b.   ..dat hij gehaald worden moest   3-2-1
             that he fetched become must(past)
             '..that he had to be fetched'
       c.   ..dat hij gehaald worden moeten zou   4-3-2-1
             that he fetched become must should
             '..that he ought to be fetched'

(45)   System II
       a.   ..dat hij gehaald werd   2-1
             (see (44a))
       b.   ..dat hij gehaald moest worden   3-1-2
             that he fetched must(past) become
       c.   ..dat hij gehaald zou moeten worden   4-1-2-3
             that he fetched should must become

(46)   System III
       a.   ..dat hij werd gehaald   1-2
             that he became fetched
       b.   ..dat hij moest gehaald worden *or* worden gehaald   1-3-2 or 1-2-3
             that he must fetched become *or* become fetched

(Stroop does not present a c-example for system III.)

In system I, the infinitives are consistently adjoined to the modals, and the participle is obligatorily moved to the highest available position. For (44b-c), the adjunction of the infinitives leaves the participle no other choice than to move to the specifier position of the highest verb. All lower potential licensing positions are disqualified by the adjunction of the infinitives. For (44a), we have to say that the option of licensing the participle in the specifier of *OF* (yielding a *1-2* order) is not chosen.

In system II, the infinitives consistently refuse to adjoin in overt syntax, yielding 'ascending' orders, apart from the participle. The participle, like in system I, consistently moves to the highest available licensing position. That is, the system consistently takes the highest copy of the auxiliary to determine the licensing position for the participle.

In system III, like in system II, the modal and the auxiliary show the 'ascending' order. Unlike system II, the participle is licensed in a specifier position directly associated with the auxiliary. As predicted by the analysis presented here, there are two such positions (assuming *worden* to be a composite, like *hebben*), each of which can be taken in complete optionality.

7.   Conclusion

This paper leaves many questions concerning verb clusters in Continental West Germanic unanswered. For example, the mechanism of the IPP-effect and the word order generalizations

associated with it have been glossed over (see Vanden Wyngaerd 1994 for an interesting approach). Also, the question of 'Verb Projection Raising material' intervening between an auxiliary and a participle has not been discussed. (In the line of the analysis pursued here, we are led to conclude that *BE* and *OF* can be separated by the licensing phrase for the intervening material.)

However, I hope to have shown that progress can be made if the syntax of the Continental West Germanic verb clusters is approached from a restrictive starting point, namely that all Germanic languages should be considered to be structured alike.

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Bach, E. (1962) "The Order of Elements in a Transformational Grammar of German." *Language* 38, 263-269.

Baker, M.C. (1988) *Incorporation. A Theory of Grammatical Function Changing.* Chicago: The University of Chicago Press.

Baur, A. (1988) *Schwyzertüütsch.* Winterthur: Gemsberg Verlag.

Besten, H. den (1977) "On the Interaction of Root Transformations and Lexical Deletive Rules." In *Studies in West Germanic Syntax*, H. den Besten, PhD dissertation University of Tilburg, 1989.

Besten, H. den and J. Edmondson (1983) "The Verbal Complex in Continental West Germanic." In *On the Syntax of the Westgermania*, W. Abraham, ed., John Benjamins: Amsterdam.

Bloemhoff, H. (1979) "Heranalyse van een Stellingwerver oppervlaktestructuur." *Us Wurk* 28, 31-38.

Bruch, R. (1973) *Précis populaire de grammaire luxembourgeoise.* Luxembourg: Éditions de la Section de Linguistique de l'Institut gr.-d.

Dam, J. van (1972) *Syntax der deutschen Sprache.* Groningen: Wolters-Noordhoff.

Dikken, M. den (1994) "Minimalist Verb (Projection) Raising". In *Minimalism and Kayne's Asymmetry Hypothesis. Groninger Arbeiten zur germanistischen Linguistik 37*, C.J.W. Zwart, ed., Department of German, University of Groningen, 71-88.

Dikken, M. den and E. Hoekstra (1994) "Iets over het Participium-Pro-Infinitivo effect." Paper presented at the TABU-dag, Groningen, June 24.

Evers, A. (1975) *The Transformational Cycle in Dutch and German.* PhD dissertation, University of Utrecht.

Freeze, R. (1992) "Existentials and Other Locatives." *Language* 68, 553-595.

Groat, E. and J. O'Neil (1994) "Spell Out at the LF-Interface." Ms., Harvard University.

Hoekstra, E. (1994) "Analysing Linear Asymmetries in the Verb Clusters of Dutch and Frisian and their Dialects." Ms, P.J. Meertens Institute, Amsterdam.

Kaan, E. (1992) "A Minimalist Approach to Extraposition." MA-thesis, University of Groningen.

Kayne, R.S. (1993) "Toward a Modular Theory of Auxiliary Selection." *Studia Linguistica* 47.

Kayne, R.S. (1994) *The Antisymmetry of Syntax.* Cambridge: MIT Press.

Koster, J. (1975) "Dutch as an SOV Language." *Linguistic Analysis* 1, 111-136.

Neeleman, A. (1994) *Complex Predicates.* PhD dissertation, University of Utrecht.

Reuland, E.J. (1981) "On Extraposition of Complement Clauses." In *Proceedings of NELS 11*, V. Burke and J. Pustejovski, eds., Amherst: GLSA, 296-318.

Rutten, J. (1991) *Infinitival Complements and Auxiliaries.* PhD dissertation, University of Amsterdam.

Shepherd, P.H.M. (1946) *Van Taol naar Taal. Nederlands voor Maastricht en omstreken.* Maastricht: Goffin.

Stroop, J. (1970) "Systeem in gesproken werkwoordsgroepen." In *Nederlands dialectonderzoek*, J. Stroop, ed., Amsterdam: Huis aan de drie grachten, 247-264.

Travis, L. (1984) *Parameters and Effects of Word Order Variation.* PhD dissertation, MIT.

Vanacker, V.F. (1970) "Een 'Zuidnederlandse' constructie in een paar Zuidnederlandse dialecten." *De Nieuwe Taalgids* 1970, special Van Haeringen issue, 140-157.

Vanden Wyngaerd, G. (1989) "Object Shift as an A-Movement Rule." *MIT Working Papers in Linguistics* 11, 256-271.

Vanden Wyngaerd, G. (1994) "IPP and the Structure of Participles." In In *Minimalism and Kayne's Asymmetry Hypothesis. Groninger Arbeiten zur germanistischen Linguistik 37*, C.J.W. Zwart, ed., Department of German, University of Groningen, 265-276.

Vendryes, J. (1937) "Sur l'emploi de l'auxiliaire *avoir* pour marquer le passé." In *Mélanges de linguistique et de philologie offerts à Jacq. van Ginneken*, J. Wils et al., eds., Klincksieck, Paris, 85-92.

Verhasselt, J. (1961) "Verschillen tussen Noord en Zuid inzake de volgorde hulpwerkwoord-hoofdwerkwoord." *Taal en Tongval* 13, 153-157.

Zwart, C.J.W. (1993) *Dutch Syntax. A Minimalist Approach.* PhD dissertation, University of Groningen.

Zwart, C.J.W. (1994) "Dutch is Head Initial." To appear in *The Linguistic Review* 11.