A Note on Verb Clusters in the Stellingwerf Dialect

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1. Introduction

The Continental West Germanic languages and dialects display a bewildering variety of word orders in sentence final verb clusters (see Stroop 1970, Evers 1975, Schönenberger 1989, Rutten 1991, Haegeman 1992, Hoekstra 1994, Zwart 1994a).[1] In this respect, the Continental West Germanic languages, with the exception of Yiddish (see Den Besten and Moed-Van Walraven 1986), differ sharply from English and the Scandinavian languages, in which the word order is a direct reflection of the hierarchical relations among the verbs.

This suggests that the order of the verbs in English and Scandinavian multi-verb constructions is the 'basic' word order. If English and the Scandinavian languages did have verb movements which could potentially disturb the basic word order in the verb clusters, it would be purely accidental that this basic word order is never disturbed in actual fact. Conversely, the various patterns in Continental West Germanic must be derived by verb movements disturbing the basic pattern in various ways.[2]

If this is correct, the null hypothesis appears to be that also in Continental West Germanic the basic order of the verbs shows a direct correspondence between hierarchy and precedence, as illustrated schematically in (1) (see also Zwart 1993, 1994a, 1994b):
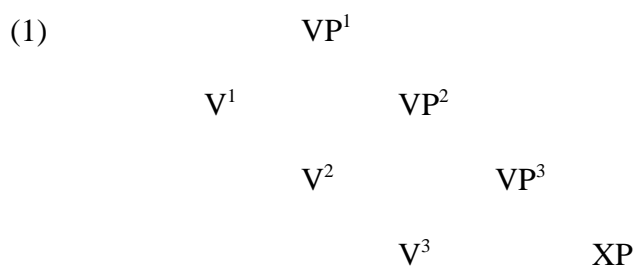
(1) VP^1

　　V^1　　　VP^2

　　　　V^2　　　VP^3

　　　　　V^3　　　XP

[2] The verb movement yielding the word order in verb clusters must be distinguished from the verb fronting in main (and sometimes embedded) clauses. The latter occurs overtly in both Continental West Germanic languages and in the remaining Germanic languages.

In some Continental West Germanic dialects, like Dutch, the hierarchical order may surface (*zal kunnen doen* [1-2-3] 'will can do'), whereas in others, like German, the hierarchical order is partly or completely inverted (*wird machen können* [1-3-2] 'will do can' or *machen können wird* [3-2-1] 'do can will').

The movements bringing out the reorderings are traditionally referred to as *Verb Raising* and *Verb Projection Raising*. Until recently, these movements were considered to be *rightward* movements, and the word order variation was derived by stipulating the *direction of adjunction*. The traditional analyses were built on the assumption that the basic structure of a multi-verb construction in Continental West Germanic is the *mirror image* of the structure in (1) (see Zwart 1994b for discussion). In the present approach, verb raising is a leftward movement rule, and adjunction invariably takes place to the left (cf. Kayne 1994).[3] Word order variation may be considered as a matter of overt vs. covert movement (in the sense of Chomsky 1993).[4]

In this paper, I will argue that the word order variation in Continental West Germanic verb clusters results from two different movement processes:

(2)   *Movements in verb clusters*
        1. adjunction of an infinitival verb to a modal verb (X°-movement)
        2. raising of a participle to the specifier position of an auxiliary verb (XP-movement)

It is assumed in (2.2) that all other XP-internal elements have been moved out of the XP before the participle moves to the specifier position of the auxiliary verb (i.e. a form of *have* or *be*).[5]

I believe that the evidence supporting the distinction between infinitive movement and participle movement is quite clear. In section 3, I will briefly point out some of the evidence. The main purpose of this paper, however, is to illustrate

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[3]   Verb Projection Raising in the traditional sense (involving raising of a combination of a verb and a VP-internal constituent) is no longer needed in an analysis of verb raising based on the structure in (1). See Kaan (1992) and Zwart (1993:345), (1994b).

[4]   Matters are in fact more complicated if optional word order variation is taken into account (e.g. Dutch *gewerkt heeft* [2-1] 'worked has' next to *heeft gewerkt* [1-2] 'has worked'; cf. Zwart 1994a, 1995 for an analysis of these patterns in terms of movement to two different specifier positions associated with the auxiliary).

[5]   It is assumed here that auxiliaries are lexical verbs rather than functional elements. Hence, the proposal in the text implies that participles are licensed in the specifier position of a lexical category. This is at odds with standard conceptions of licensing in the minimalist framework. I will refrain from discussing this aspect of the analysis here. It is also assumed that infinitives replacing participles (see section 2 below) count as participles. Therefore, they need to be licensed via XP-movement as well.

how the assumptions in (2) help explain the puzzling properties of the verb clusters in the Stellingwerf dialect, reported in Bloemhoff (1979).[6]

2. *General Properties of Verb Clusters in Continental West Germanic*

First, the general properties of Continental West Germanic verb clusters will be briefly illustrated. I will use *V1* to refer to the hierarchically highest verb, in accordance with (1).

In two-verb clusters, if V1 is an auxiliary (i.e. Dutch *hebben* 'have', *zijn* 'be', or *worden* 'become [used in passive constructions]'), V2 is a participle (PART):

(3) a. ..dat   Jan   gewerkt   heeft   Dutch
         that   John   worked-PART has   [2-1]
         '..that John has worked'
    b. *..dat   Jan   werken   heeft
         that   John   work-INF has   [2-1]

If V1 is a modal verb, a perception verb, or a causative verb, V2 is an infinitive (INF):[7]

(4) a. ..dat   Jan   kan   werken   Dutch
         that   John   can   work-INF   [1-2]
    b. *..dat   Jan   kan   gewerkt
         that   John   can   worked-PART   [1-2]

In three-verb clusters in Dutch, German, and dialects of Dutch and German, if V1 is an auxiliary, both V2 and V3 are infinitives (V2 is the so-called *infinitivus pro participio*):

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[6]   The Stellingwerf dialect is spoken in the Southeast of the Dutch province of Friesland, and in the border area of Friesland, Overijssel, and Drenthe. It is traditionally classified as a Saxonian, rather than a Frisian dialect. According to Hoppenbrouwers and Hoppenbrouwers (1993), Stellingwerfs belongs to a group of isolated mixed Frisian/Saxonian dialects. Verb clusters in Stellingwerfs are studied foremost in Bloemhoff (1977; 1979) and recently in Hoekstra (1994) and Den Dikken and Hoekstra (1995) (both using Bloemhoff's material). The Stellingwerf data in this article are all from Bloemhoff as well.

[7]   In Dutch, the preferred word order in two-verb clusters is [2-1] when V1 is an auxiliary, and [1-2] when V1 is a modal verb.

(5) a. ..dat   Jan   heeft   kunnen   werken   Dutch
        that   John   has   can-INF   work-INF   [1-2-3]
        '..that John has been able to work'
    b. *..dat   Jan   heeft   gekund   werken   [1-2-3]
        that   John   has   could-PART   work-INF

In Frisian and Stellingwerfs, however, V2 is not replaced by an infinitive in comparable situations:

(6) a. ..dat   Jan   dat   doen   kund   had   Stellingwerfs
        that   John   that   do-INF   could-PART   had   [3-2-1]
        '..that John could have done that'
    b. *..dat   Jan   dat   doen   kunnen   had   [3-2-1]
        that   John   that   do-INF   can-INF   had

If V1 is a modal verb, a perception verb, or a causative verb, V2 and V3 are both infinitives, in all dialects of Continental West Germanic:

(7) a. ..dat   Jan   dat   moet   kunnen   doen   Dutch
        that   John   that   must   can-INF   do-INF   [1-2-3]
        '..that John must be able to do that'
    b. ..dat   et   regenen   gaon   zol   Stellingwerfs
        that   it   rain-INF   go-INF   would   [3-2-1]
        '..that it would start to rain'

3. *Initial Evidence for the Distinction between Infinitive Movement and Participle Movement*

If the distinction between infinitive movement and participle movement in (2) is correct, verb clusters are predicted to differ depending on the nature of the hierarchically highest verb in the cluster (V1).

As is clear from (3) and (4), the morphological properties of V2 depend on the nature of V1: an auxiliary selects a participle, a modal verb selects an infinitive. Let us assume that the trigger for the verb movements that yield the various word orders in verb clusters is a morphological licensing requirement in the sense of Chomsky (1993). If so, the morphological difference between participles and infinitives might be taken to indicate that different licensing processes are involved. This opens up the possibility that infinitives are licensed by head adjunction, whereas participles are licensed by movement to a specifier position.

The *infinitivus pro participio (IPP)* effect in (5) seems to disturb the relation between the nature of V1 and the morphology of V2. However, a closer look at the

phenomenon indicates that the IPP effect might even constitute an argument in support of the idea that infinitive movement is head movement.

Vanden Wyngaerd (1994) observes that all dialects in which the V2 participle is replaced by an infinitive use the prefix *ge-* in the formation of the participle. Vanden Wyngaerd argues that the prefix *ge-* is adjoined to the verb stem, and blocks adjunction of the infinitival verb to the modal participle (for reasons that do not concern us here). If this generalization turns out to be correct, the movement process in (2.1) is supported by the very existence of the *infinitivus pro participio* effect.[8]

Evidence in support of the XP-movement in (2.2) can be found in West Flemish.

In West Flemish (WF), the verb cluster can be broken up by various types of intervening material (see Vanacker 1970 for a survey). In (8), the intervening element is the direct object of the V2:

(8)   ..da   Valère eet   willen   *dienen boek*   kuopen   WF
         that   Valery has   want-INF that book   buy-INF [1-2-3]
         '..that Valery wanted to buy that book'

In the analysis of Kaan (1992) and Zwart (1994) (see also Vanden Wyngaerd 1989), the object *dienen boek* in (8) has been raised from its base position to the right of *kuopen* to its licensing position in the specifier position of an AgrOP situated between V2 *willen* and V3 *kuopen*:

(9) $[_{VP1}$ eet$_1$ $[_{VP2}$ willen$_2$ $[_{AgrOP}$ [dienen boek]$_i$ $[_{V3}$ kuopen$_3$ t$_i$]]]]

A construction like (8) is also possible when the V1 is a modal verb:

(10)   ..da   Valère *zou*   willen   dienen boek   kuopen   WF
          that   Valery would want-INF that book   buy-INF
          '..that Valery would want to buy that book'

Next to (8), the following word order is grammatical, with the VP2 preceding the V1 (cf. (9); cf. Den Dikken 1994:83, with reference to Haegeman, p.c.):

(11)   ..da   Valère willen   dienen boek   kuopen   eet   WF
          that   Valery want-INF that book   buy-INF   has [2-3-1]
          '..that Valery wanted to buy that book'

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[8]   It is not the case, however, that all dialects that use *ge-* always display the IPP effect, witness German couterexamples with perception verbs and causative verbs (e.g. *lesen gesehen hat* [3-2-1] 'read-INF seen-PART has' next to *hat lesen sehen* [1-3-2] 'has read-INF seen-PART').

Assuming the structure in (9), the word order in (11) can only be derived by moving the VP2 to the left of the V1. This shows that the complement of the auxiliary *eet* is licensed through XP-movement, as stated in (2.2).

(12) $[_{VP1}$ $[_{VP2}$ willen$_2$ $[_{AgrOP}$ [dienen boek]$_i$ $[_{V3}$ kuopen$_3$ t$_i$]]]$_j$ [eet$_1$ t$_j$]]

If (2) is correct, there should not be a construction parallel to (11) with a modal V1. And in fact, (11) is ungrammatical if *eet* is replaced by *zou*:

(13)   *..da   Valère willen   dienen boek   kuopen   zou   WF
            that   Valery want-INF that book   buy-INF   would [2-3-1]

This shows that the complement of a modal verb is not licensed through XP-movement, as stated in (2.1).

More generally, I have not been able to find, in any of the dialects of Continental West Germanic, 2-3-1 verb clusters in which V1 is a modal verb. This is independent of the nature of V2 (i.e., the type *hebben gelezen kan* [2-3-1] 'have-INF read-PART can' is unattested, as far as I have been able to ascertain).[9]

4. *Modal Verbs vs. Auxiliaries in Stellingwerfs*

Bloemhoff (1979:31,33) notes the following contrasts in the Stellingwerf dialect:

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[9]   A 2-3-1 cluster with V2 a perception verb or a causative verb does not sound altogether impossible to me (e.g. *??zien lezen heeft* [2-3-1] 'see-INF read-INF has'), although I have not actually found examples in the dialects I looked at. Generally, causative/perception verbs appear to behave differently from modal verbs. For example, the High German absence of the IPP effect mentioned in note 8 seems restricted to clusters involving a causative or perception verb V2. Also, Bloemhoff (1995) notes curious cases of 2-1-3 clusters in certain areas of the Stellingwerf region (e.g. *zien heb staon* [2-1-3] 'see-INF(IPP) have-FIN stand-INF'). Extraposition cases aside, 2-1-3 clusters throughout Continental West Germanic appear to be utterly impossible. Bloemhoff (1979:37) notes that 2-1-3 clusters are impossible with modal V2, suggesting again that perception verbs display aberrant behavior. I have also heard one native speaker of Frisian use Dutch 2-1-3 clusters with a causative V2 (*leren laten tekenen* 'learn-INF let-FIN draw-INF').

(14) a. Zol   hi'j   dat   daon   hebben   kund?   S'werf
          would he that   done-PART   have-INF could-PART   [1..4-3-2]
          'Could [=zol kund] he have done that?'

      b. *..dat hi'j   dat   daon   hebben   kund   z
                                                                  o
                                                                  l
          that   he that   done-PART   have-INF could-PART   would
                                                                  [4-3-2-1]

(15) a. ..dat hi'j   dat   daon   hebben   kunnen   zol S'werf
          that   he that   done-PART   have-INF can-INF   would
          '..that he could have done that'   [4-3-2-1]

      b. *Zol hi'j   dat   daon   hebben   kunnen?
          would he that   done-PART   have-INF can-INF   [1..4-3-2]

In (14a), V2 is a participle, surprisingly selected by a modal V1. One way to account for this would be to assume that the cluster in (14a) contains an empty auxiliary verb *hebben* 'have' between V1 and V2. In that case, (14a) would contain a five verb cluster.

However, this solution is rejected by Den Dikken and Hoekstra (1995), on the ground that (14a) does not show the semantic features that a double *hebben* analysis predicts.[10] The empty *hebben* analysis would also predict, other things being equal, that (14b) is a possible structure, contrary to fact (cf. (16)).

(16)   ..dat hi'j   dat   daon   hebben   zol   Stellingwerfs
          that   he that   done-PART   have-INF would   [3-2-1]
          '..that he would have done that'

I will therefore assume that there is not an empty *hebben* involved in the cluster in (14a), following Den Dikken and Hoekstra (1995).

Nevertheless, I believe the morphological character of the V2 in (14a) cannot be ignored. If we were right before, elements bearing participial morphology cannot be licensed by head movement (2.2).

With this in mind, consider the contrast in (14). Assuming a head initial basic structure, as in (1), *kund* in (14b) must originate to the right of *zol* and must end up to the left of *zol* by way of movement. However, since *kund* is a participle, *kund* cannot adjoin to *zol* via head movement, by (2.2).

By the same token, movement of *kund* to the left of *zol* as part of a larger structure *hebben kund* or *daon hebben kund* is excluded.

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10   The double *hebben* analysis was explored in an earlier version of Den Dikken and Hoekstra (1995), presented at the TABU-dag, Groningen, June 24. See also Bloemhoff (1979:33-34).

Hebben kund would be the result of adjunction of *hebben* to the participle *kund* (see below, (17b)). On standard conceptions of adjunction, this would not affect the categorial status of the participle. By (2.2), then, *hebben-kund* would still have to be licensed in a specifier position, which is impossible with a modal V1.

Similarly, the larger structure *daon hebben kund* would have to be an XP. Consider the derivation in (17):[11]

(17) a. zol kund   hebben   daon
      b. zol (hebben)-kund   (hebben)   daon
      c. zol (daon) (hebben)-kund (hebben)   (daon)
      d. *((daon) (hebben)-kund   (hebben)   (daon)) zol
                            ((daon) (hebben)-kund   (hebben)   (daon))

In (17), *hebben* first adjoins to the participle *kund* (17b).[12] As I have argued elsewhere (Zwart 1994a, 1995), this adjunction has the effect that the modal participle *kund* takes over the licensing properties of the adjoined infinitival auxiliary *hebben*. In other words, the participle *daon* selected by *hebben* must now be licensed in the specifier position of *hebben-kund* (17c).[13] The only way to derive (14b) would then be to move the XP *daon hebben-kund* to the left of the modal *zol*, which is disallowed by (2).

It follows from the assumptions in (2), then, that (14b) cannot be derived. If this is correct, (14a) must be derived from (18a), corresponding to (18b) (=(17c)):

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[11] In the notation of derivations, moved categories and their traces are written as *copies*, each copy in parentheses. Adjunction is indicated by a hyphen joining the moved category and its host, movement to a specifier by a space in between the moved category and the host. Spelled out copies are underlined in the notation of the final stage of the derivation.

[12] Recall that, according to VandenWyngaerd (1994), adjunction to a participle is possible if the participle lacks the prefix *ge-*.

[13] The idea that the modal verb is turned into a licenser of the participle by the adjoined infinitival auxiliary is also needed to account for the standard 3-2-1 order in German *gemacht haben kann* 'made-PART have-INF can-FIN', also possible in dialects of Dutch and marginally in Standard Dutch. The preferred 3-1-2 order of Standard Dutch (*gedaan kan hebben* 'made-PART can-FIN have-INF') can be accounted for if we assume that the infinitival auxiliary adjoins to the modal verb covertly, so that the participle is licensed in the specifier of the modal-auxiliary combination at LF (Eric Hoekstra, p.c.). If adjunction of the auxiliary has the effect of creating a derived licensing position for the participle, verb raising is crucially different from functional head movement (e.g. AgrS-to-C movement). In Zwart (1993, III.4.3.2), I have argued that functional head movement does not create a derived licensing position for XPs (e.g. after AgrS-to-C movement, the subject is still licensed in the specifier position of AgrS, not in the specifier position of C).

(18) a. ..dat   hi'j   dat   zol   daon   hebben   kund
          that   he that   would done-PART   have-INF could-PART
          '..that he could have done that'   [1-4-3-2]
      b. zol (daon) (hebben)-kund (hebben)   (daon)

Bloemhoff (1979:37) quotes H. Entjes as saying that (18) is quite generally used in the dialects of Overijssel, just South of the Stellingwerf area.[14]

Unlike (14b), (15a) can be derived as a successive head adjunction construction, apart from the movement of the participle *daon*:

(19) a. zol kunnen   hebben   daon
      b. zol (hebben)-kunnen (hebben)   daon
      c. ((hebben)-kunnen)-zol   ((hebben)-kunnen)   (hebben) daon
      d. (daon) ((hebben)-kunnen)-zol ((hebben)-kunnen)   (daon)

Unlike the participial *hebben-kund* in (17b), *hebben-kunnen* in (19b) is an infinitive. By (2.1), then, it must adjoin to a higher head, *zol* (19c). The adjunction of *hebben* to *kunnen* turns *hebben-kunnen* into a licenser for the participle (see the discussion of (17c) above). Similarly, the adjunction of *hebben-kunnen* to *zol* turns *hebben-kunnen-zol* into a licenser for the participle. By (2.2), then, movement of the participle *daon* to the specifier of *(hebben-kunnen-)zol* in (19d) is allowed (and, in fact, obligatory for licensing purposes, see note 9).

This analysis of (14)-(15), in conjunction with the assumptions in (2), now makes a clear prediction:[15] if the modal verb *zol* 'would' is replaced by the auxiliary *had* 'had', (14b) should be grammatical. And it is (Bloemhoff 1979:37 fn. 1):

(20)   ..dat   hi'j   dat   daon   hebben   kund   had
                                                                 Stellingwerfs
           that   he that   done-PART   have-INF could-PART had
           '..that he could [=kund had] have done that'   [4-3-2-1]

The derivation of (20) mirrors the derivation in (17) exactly, except that the final step (21d) is not disallowed:

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[14] I have no data on the possibility of (18) in Stellingwerfs proper. We cannot exclude the possibility that (15a) blocks (18) in the relevant dialects. In (18b), there is no licensing position for the participle *kund*, if (2) is correct. I will leave this for further study, noting that (2) does not make any predictions concerning the licensing of a participle in the context of a modal verb, a situation which is typical of these 'parasitic participle' constructions (see Den Dikken and Hoekstra 1995 for discussion).

[15] I refrain from discussing the ungrammaticality of (15b) in this article. Again, there may be a blocking mechanism at work here.

(21)   a.   had   kund   hebben   daon
        b.   had   (hebben)-kund   (hebben)   daon
        c.   had   (daon) (hebben)-kund (hebben)   (daon)
        d.   ((daon) (hebben)-kund   (hebben)   (daon)) had
                                ((daon) (hebben)-kund   (hebben)   (daon))

This follows from (2.2): *daon hebben-kund* is an XP headed by a participle (*kund*) and must be licensed in the specifier position of the auxiliary *had*.

(21) is also the only derivation of (20) that works. Movement of *kund* to the specifier position of *had* in the first step would leave *hebben* and *daon* behind. We know from the general impossibility of 2-1-3 orders across Continental West Germanic that this is not allowed.[16] This is explained if we assume the two movement processes in (2). With *kund* in the specifier position of *had*, no licensing position would be available for *hebben* and *daon* anymore.

We can now also conclude with a little more security that Den Dikken and Hoekstra (1995) are right in assuming that (14a) does not contain an empty verb *hebben*. An empty V2 *hebben* would be able to adjoin to the modal V1 *zol* (by (2.1)), thus turning it into a licenser for the XP *daon hebben kund* (empty *hebben* in angle brackets in (22)):

(22)   a.   zol <hebben> kund   hebben   daon
        b.   zol <hebben> (hebben)-kund   (hebben)   daon
        c.   zol <hebben> (daon) (hebben)-kund (hebben)   (daon)
        d.   (<hebben>)-zol   (<hebben>)   (daon) (hebben)-kund
                                                        (hebben) (daon)
        e.   ((daon) (hebben)-kund   (hebben)   (daon)) (<hebben>)-zol
                                (<hebben>)((daon) (hebben)-kund (hebben) (daon))

Thus, the ungrammaticality of (14b) once again indicates that the double participle construction does not involve an empty verb *hebben*.

5. *Conclusion*

In this article I have argued that the movement phenomena yielding the variety of word orders in Continental West Germanic verb clusters are of two types. Infinitives undergo head movement and are licensed by adjunction to the immediately higher verb. Participles undergo XP-movement and are licensed by movement to the specifier position of an auxiliary verb. An extension of the latter process is

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[16]   See note 9 on 2-1-3 clusters involving perception verbs and causative verbs.

movement of the participle to the specifier position of a modal verb which an infinitival auxiliary has been adjoined to.

The evidence for the difference between infinitive movement and participle movement is found in asymmetries between verb clusters headed by modal verbs and verb clusters headed by auxiliaries. The phenomena from West Flemish and Stellingwerfs show that modal verbs, unlike auxiliaries, never take a phrasal subpart of the verb cluster to their left. This follows if the complement of modal verbs is licensed via head movement, whereas the complement of auxiliaries is licensed via movement to a specifier position.

Finally, if participles are licensed in specifier positions, and specifier positions are always to the left, there is no way in which a simple 1-2 cluster consisting of an auxiliary and a participle (e.g. Dutch *heeft gewerkt* 'has worked', a variant of (3a)) can be derived starting from a head final basic structure. This we may take to be strong evidence in support of (1) as the basic structure of multi-verb constructions in all Germanic languages.

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